

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
GREATHOUSE INVESTMENTS, LLC
TYPE III WOODWASTE PROCESSING FACILITY
TECHNICALLY COMPLETE SOLID WASTE PERMIT APPLICATION

The LDEQ, Office of Environmental Services, has determined that a permit application for Greathouse Investments, LLC, 1888 East Lincoln, Lake Charles, Louisiana 70605 for the Type III Woodwaste Processing Facility is technically complete and acceptable for public review. **The facility is located at the South end of Lake Street approximately 0.6 miles from the Lincoln Road-Lake Street intersection, Lake Charles, Calcasieu Parish.**

Greathouse Investments LLC proposes to operate at Type III Woodwaste Processing Facility.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Tuesday, December 30, 2008.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The technically complete solid waste permit application is available for review at the LDEQ Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.**

Additional copies may be reviewed at Calcasieu Parish Library, 301 W. Claude Street, Lake Charles, LA, Calcasieu Parish Library, Sulphur Regional Branch, 1160 Cypress Street, Sulphur, LA, Calcasieu Parish Police Jury, 1015 Pithon Street, 3rd Floor, Lake Charles, LA and LDEQ Southwest Regional Office, 1301 Gadwall Street, Lake Charles, LA.

Inquiries or requests for additional information regarding this permit action should be directed to Enjoli' Muse, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0968.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at deqmaillistrequest@la.gov or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to general information from the technically complete solid waste permit application can be viewed at the LDEQ permits public notice webpage at www.deq.louisiana.gov/apps/pubNotice/default.asp and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm

All correspondence should specify AI Number 132768, Permit Number N/A, and Activity Number PER20070001.

Date of publication: November 26, 2008

BOBBY JINDAL
GOVERNOR



HAROLD LEGGETT, Ph.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

NOV 07 2008

CERTIFIED MAIL 7003 2260 0005 9324 0401

Ms. Carroll Greathouse
Greathouse Investments, LLC
1888 East Lincoln
Lake Charles, Louisiana 70607

RE: Technically Complete Determination
Greathouse Investments, LLC
Type III Woodwaste Processing Facility
AI-132768/ PER20070001/GD-019-12749/Calcasieu Parish

NOV 13 2008

NOV 13 2008

NOV 13 2008

Dear Ms. Greathouse:

We are in receipt of the finalized copies of your permit application dated June 30, 2008, and the subsequent submittals dated September 23, 2008. After review of these documents, we have determined that your application is technically complete and prepared for public review.


The Environmental Assistance Division will distribute copies of your application for public review and place public notices in the appropriate newspapers in accordance with LAC33:VII.513.F.3. Please contact Ms. Soumaya Ghosn at (225) 219-3276 for the date of publication and the dates for the comment period. At the conclusion of the comment period, we will consider all comments and render a permit decision regarding your application.

Please note, being that the aforementioned facility is a new facility, financial assurance must be submitted at least 60 days before the date on which solid waste is first received for processing or disposal, in accordance to LAC 33:VII.1301.D.

Ms. Greathouse
AI-132768, PER20070001
Page 2 of 2

Please continue to reference your Agency Interest Number (AI-132768), Facility Identification Number (GD-019-12749), and Permit Activity Number (PER20070001) on all future correspondence regarding this matter. If you have any questions, please contact Ms. Enjoli' Muse of the Waste Permits Division at (225) 219-0968.

Sincerely,



Bijan Sharafkhani, P.E.
Administrator
Waste Permits Division

em

c: Southwest Regional Office

BOBBY JINDAL
GOVERNOR



HAROLD LEGGETT, Ph.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

NOV 07 2008

CERTIFIED MAIL 7003 2260 0005 9324 0401

Ms. Carroll Greathouse
Greathouse Investments, LLC
1888 East Lincoln
Lake Charles, Louisiana 70607

RE: Technically Complete Determination
Greathouse Investments, LLC
Type III Woodwaste Processing Facility
AI-132768/ PER20070001/GD-019-12749/Calcasieu Parish

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Ms. Greathouse
AI-132768, PER20070001
Page 2 of 2

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Sincerely,


Bijan Sharafkhani, P.E.
Administrator
Waste Permits Division

em

c: Southwest Regional Office

COPY



LDEQ RECEIPT

PROVIDENCE

2008 JUN 30 PM 3 52

ENGINEERING & ENVIRONMENTAL GROUP LLC

1201 Main Street
Baton Rouge, LA 70802
(225) 766-7400

P.O. Box 31
Sulphur, LA 70664
(337) 528-0066

450 E. Pass Rd., #106
Gulfport, MS 39507
(228) 897-7676

1200 Walnut Hill Lane, #1000
Irving, TX 75038
(972) 550-9326

RECEIVED

JUL 02 2008

WASTE PERMITS DIVISION
SOLID & HAZARDOUS WASTE SECTION

June 30, 2008

original to IOSW
8m
copy to SW/G3/Thomas
PAAR

Louisiana Department of Environmental Quality
Office of Environmental Services
Waste Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Attn: Mr. Bijan Sharafkhani, P.E

RECEIVED

JUN 30 2008

LDEQ

Re: Solid Waste Permit Renewal Application (Final Copies)
Greathouse Investments, LLC
Woodwaste Processing Facility
AI # 132768 ✓ PER 20070001
Providence Engineering Project Number 333-001

Dear Mr. Sharafkhani:

Providence Engineering and Environmental Group LLC on behalf of Greathouse Investments, LLC (Greathouse) hereby submits to the Louisiana Department of Environmental Quality (LDEQ), Permits Division six copies of the technically complete solid waste permit application for the Type III Woodwaste Processing Facility.

Please call me at (225) 766-7400 if you have any questions or if you need any additional information.

Sincerely,
Providence Engineering and Environmental Group LLC

John P. Price

John P. Price
Environmental Scientist

cc: Carroll Greathouse, Greathouse Investments
Charrance E. Ball, LDEQ

JUNE 2008

GREATHOUSE INVESTMENTS, LLC
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

**SOLID WASTE PERMIT
APPLICATION**

**TYPE III WOODWASTE PROCESSING
FACILITY
AGENCY INTEREST NUMBER 132768**

Prepared By:

**Providence Engineering and
Environmental Group LLC**
1201 Main Street
Baton Rouge, Louisiana 70802
(225) 766-7400

Project Number 333-001



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INTRODUCTION

Greathouse Investments, LLC (Greathouse) is requesting a Type III Woodwaste Processing Facility solid waste standard permit from the Louisiana Department of Environmental Quality (LDEQ). The facility is located east of Lake Street in Lake Charles, Calcasieu Parish, Louisiana (Section 18, Township 11 South, Range 8 West).

The LDEQ Waste Permits Division granted temporary approval to strategically locate debris management sites in the parishes impacted by Hurricanes, Katrina and Rita. As authorized by the LDEQ, Greathouse is currently providing woodwaste processing services for the Louisiana Department of Transportation and Development (LADOTD) District 7 Saltwater Tree Project.

Greathouse is requesting a Type III Solid Waste Permit to manage woodwaste and yard waste in an environmentally safe manner on a permanent basis.

Woodwaste is defined in Louisiana Administrative Code (LAC) at 33:VII.115 as types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, and wood-fired boiler ash.

Yard trash is defined in LAC 33:VII.115 as vegetative matter resulting from landscaping, maintenance, or land-clearing operations, including tree and shrubbery leaves and limbs, grass clippings, and flowers.

LAC 33:VII.519

PART I: PERMIT APPLICATION FORM

A. Applicant (Permit Holder): Greathouse Investments, LLC

B. Facility Name: Type III Woodwaste Processing Facility

C. Facility Location/Description: South end of Lake Street approximately 0.6 miles from the Lincoln Road-Lake Street intersection, Lake Charles, Louisiana 70605.

D. Location Section 18 Township 11 South Range 8 West

Parish: Calcasieu

Coordinates: Latitude Degrees 30 Minutes 06 Seconds 13
Longitude Degrees 93 Minutes 13 Seconds 54

E. Mailing Address: 1888 East Lincoln, Lake Charles, Louisiana 70607

F. Contact: Carroll Greathouse, Owner

G. Telephone: (337) 477-6215

H. Type and Purpose of Operation: (check each applicable line)

Type I

Industrial Landfill _____
Industrial Surface Impoundment _____
Industrial Landfarm _____

Type I-A

Industrial Incinerator Waste Handling Facility _____
 Industrial Shredder/Compactor/Baler _____
 Industrial Transfer Station _____

Type II

Sanitary Landfill _____
Residential/Commercial Surface Impoundment _____
Residential/Commercial Landfarm _____

Type II-A

Residential/Commercial Waste Handling Facility ____
Residential/Commercial Shredder/Compactor/Baler ____
Residential/Commercial Transfer Station ____
Residential/Commercial Refuse-Derived Fuel ____
Residential/Commercial Autoclave Waste Handling Facility ____

Type III

Construction/Demolition-Debris Landfill ____
Woodwaste Landfill ____
Compost Facility ____
Resource Recovery/Recycling Facility ____

Other X

Describe: Type III Woodwaste Processing Facility

I. Site Status: Owned ____ Leased X Lease Term ____

(Note: If leased, provide copy of lease agreement)

See **Appendix A** for the lease agreement. The lease expires November 11, 2012. A ten-year lease is not currently an option for this property. However, Greathouse Investments, LLC (Greathouse) recognizes that a condition of the permit will require an extension of the lease for the life of the permit. Prior to expiration of the lease, Greathouse will submit a lease agreement renewal.

J. Operation Status: ____ Existing X Proposed

K. Total Acreage 66 Processing Acreage 2 Disposal Acreage 0

L. Environmental Permits: (List)

Air Permit: Application in progress

M. Conformity with regional plans. Attach letter from the Louisiana Resource Recovery and Development Authority (LRRDA) stating that the facility is an acceptable part of the statewide program.

(NOTE: In accordance with R. S. 30:2307.B, LRRDA authority does not apply to solid waste disposal activity occurring entirely within the boundaries of a plant, industry, or business which generates such solid waste.)

N/A. This section is no longer a requirement of the Louisiana Revised Statute.

N. Zoned: Yes X No ____ Zoning Requested N/A

Zone Classification: I-1 Light Industrial

(NOTE: If zoned, include zoning affidavit and/or other documentation, stating that the proposed use does not violate existing land-use requirements.)

See Appendix B for zoning documentation.

O. Types, Quantities, and Sources of Waste:

	Processing		Disposal	
	On-site	Off-site	On-site	Off-site
Residential				
Industrial				
Commercial				
Other		50 wet tons/week		

P. Service Area: Unlimited

List of Parishes: Although the service area is unlimited, waste is typically received from Calcasieu and Cameron Parishes.

Q. Proof of Operator's Public Notice – Attach proof of publication of the notice regarding the permit application submittal as required by LAC 33:VII.513.A.

The required proof of publication is included in **Appendix C.**

GREATHOUSE INVESTMENTS, LLC

- R. Certification: I have personally examined and am familiar with the information submitted in the attached document, and I hereby certify under penalty of law that this information is true, accurate, and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment.

Signature

Carroll Greathouse

Date

4/28/2007

Typed Name and Title

Carroll Greathouse owner

(NOTE: Attach proof of the legal authority of the signee to sign for the applicant.)

The certification is being made by the owner of Greathouse Investments, LLC.

LAC 33:VII.520

**ADDENDUM TO PERMIT APPLICATION
PER LAC 33:I.1701**

Media Type (check one)


Hazardous Waste ☐ Air ☒Solid Waste ☒ Water ☐Radiation Licensin ☐

Agency Interest Number: 132768

Is this a copy of a previously submitted form? Yes ☐ No ☒

If yes, indicate the original submittal date: _____

If yes, indicate the original permit number: _____

Department of Environmental Quality Permits Division P.O. Box 4312 Baton Rouge, LA 70821-4312 (225) 219-3041		Addendum to Permit Applications per LAC 33:I.1701		
Please Type Or Print	Company Name Greathouse Investments, LLC	<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	4.1.1.1 For Permits Division Use Only	
	Parent Company (if Company Name given above is a division)			
	Plant name (if any) Woodwaste Processing Facility			
	Nearest town Lake Charles	Parish where located Calcasieu		

1. Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

☐ Permits in Louisiana. List Permit Numbers: N/A

☐ Permits in other states (list states): N/A

2. Do you owe any outstanding fees or final penalties to the Department? No ☒ Yes ☐
If yes, please explain. _____

3. Is your company a corporation or limited liability company? No ☐ Yes ☒ If yes, attach a copy of your company's Certificate of Registration and/or Certificate of Good Standing from the Secretary of State. A copy of proof of registration is enclosed as **Attachment 1**.

Certification:

I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Addendum to the Permit Application, including all attachments thereto are true, accurate, and complete.

Responsible Official

Name	Carroll Greathouse
Title	Owner
Company	Greathouse Investments, LLC
Suite, mail drop, or division	
Street or P.O. Box	1888 East Lincoln Road

City	State	Zip
Lake Charles	LA	70607
Business phone (337) 477-6215		
Signature of responsible official(s) <i>Carroll Greathouse</i>		
Date 4/30/07		

ATTACHMENT 1
CERTIFICATE OF REGISTRATION



Louisiana Secretary of State
COMMERCIAL DIVISION
Corporations Database



***Louisiana Secretary of State
Detailed Record***

Charter/Organization ID: 36419005K

Name: GREATHOUSE INVESTMENTS, LLC

Type Entity: Limited Liability Company

Status: Active

Annual Report Status: In Good Standing **Add Certificate of Good Standing to Shopping Cart**

Mailing Address: C/O CARROLL G. GREATHOUSE, 1888 E. LINCOLN RD., LAKE CHARLES, LA 70607

Domicile Address: 1888 E. LINCOLN RD., LAKE CHARLES, LA 70607

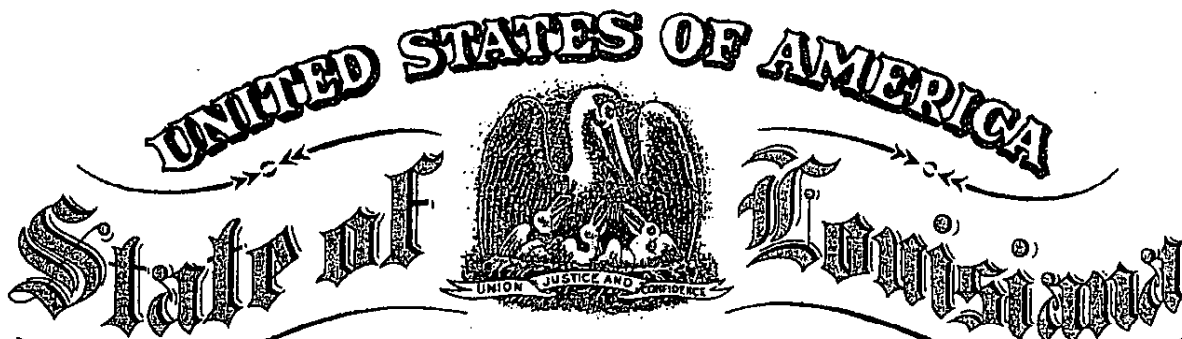
File Date: 04/02/2007

Registered Agent (Appointed 4/02/2007): CARROLL G. GREATHOUSE, 1888 E. LINCOLN RD., LAKE CHARLES, LA 70607

Member: CARROLL G. GREATHOUSE, 1888 E. LINCOLN RD., LAKE CHARLES, LA 70607

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Jay Bardenne
SECRETARY OF STATE

As Secretary of State, of the State of Louisiana, I do hereby Certify that
a copy of the Articles of Organization and Initial Report of

GREATHOUSE INVESTMENTS, LLC

Domiciled at LAKE CHARLES, LOUISIANA,

Was filed and recorded in this Office on April 02, 2007,

And all fees having been paid as required by law, the
limited liability company is authorized to transact business
in this State, subject to the restrictions imposed by law,
including the provisions of R.S. Title 12, Chapter 22.

*In testimony whereof, I have hereunto set
my hand and caused the Seal of my Office
to be affixed at the City of Baton Rouge on,
April 2, 2007*


KKI 36419005K

Secretary of State

LAC 33:VII.521

**PART II: SUPPLEMENTARY INFORMATION, ALL
PROCESSING AND DISPOSAL FACILITIES**

§521. Part II: Supplementary Information, All Processing and Disposal Facilities

The following information is required in the permit application for solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation. Additionally, all applicable sections of LAC 33:VII.Chapter 7 must be addressed and incorporated into the application responses. If a section does not apply, the applicant must state that it does not apply and explain why.

All responses and exhibits are identified in this application. In addition, all applicable sections of LAC 33:VII.Chapter 7 have been addressed and incorporated into the corresponding sections of the application. All sections that do not apply have been explained.

A. Location Characteristics. Standards pertaining to location characteristics are contained in LAC 33:VII.709.A (Type I and II facilities), LAC 33:VII.717.A (Type I-A and II-A facilities), and LAC 33:VII.719.A (Type III facilities).

1. The following information on location characteristics is required for all facilities:

- a. **Area Master Plans** - a location map showing the facility, road network, major drainage systems, drainage-flow patterns, location of closest population center(s), location of the public-use airport(s) used by turbojet aircraft or piston-type aircraft, proof of notification of affected airport and Federal Aviation Administration as provided in LAC 33:VII.709.A.2, location of the 100-year flood plain, and other pertinent information. The scale of the maps and drawings must be legible, and engineering drawings are required.

As shown on **Figures 1 and 2**, Greathouse is located on the south end of Lake Street approximately 0.6 miles from the Lincoln Road-Lake Street intersection in Lake Charles, Louisiana. Primary access to the facility is generally available from Lake Street.

Figure 1 depicts the closest population centers and **Figure 2** shows the drainage flow pattern.

The nearest public or private use airport is the Lake Charles Regional Airport located approximately 1.7 miles northwest of the facility. The facility does not compost putrescible solid wastes. Therefore, the terms of LAC 33:VII.709.A.2 and 33:VII.719.A.2 do not apply.

A Flood Zone Map derived from the Louisiana Oil Spill Coordinator's Office (LOSCO) 1999 dataset is included as **Figure 3**.

- b. **A letter from the appropriate agency or agencies regarding those facilities receiving waste generated off-site, stating that the facility will not have a significant adverse impact on the traffic flow of area roadways and that the construction, maintenance, or proposed upgrading of such roads is adequate to withstand the weight of the vehicles.**

Access roads are all-weather roads that can meet the demands of the facility and are designed to avoid, to the extent practicable, congestion, sharp turns, obstructions, or

other hazards conducive to accidents; and the surface roadway are adequate to withstand the weight of transportation vehicles.

Greathouse will not have a significant adverse impact on the traffic flow of area roadways, and the roads are adequate to withstand the weight of the vehicles. See **Appendix D** for documentation from the appropriate agency.

c. Existing Land Use. A description of the total existing land use within three miles of the facility (by approximate percentage) including, but not limited to:

- i. Residential;
- ii. Health-care facilities and schools;
- iii. Agricultural;
- iv. Industrial and manufacturing;
- v. Other commercial;
- vi. Recreational; and
- vii. Undeveloped.

Areas within a three-mile radius of the facility are used for a variety of purposes, including:

- i. Residential—3%
- ii. Health-care facilities and schools—0%
- iii. Agricultural—83%
- iv. Industrial and manufacturing—1%
- v. Other commercial—1%
- vi. Recreational—1%
- vii. Undeveloped—11%

Please see **Figure 4** for the existing Land Use Map identifying these designated areas and **Appendix E** for the land use data provided from the LOSCO.

d. Aerial Photograph. A current aerial photograph, representative of the current land use, of a one-mile radius surrounding the facility. The aerial photograph shall be of sufficient scale to depict all pertinent features. (The administrative authority may waive the requirement for an aerial photograph for Type III facilities.)

Greathouse is a Type III woodwaste processing facility. See **Figure 5** for the Aerial Photograph.

e. Environmental Characteristics. The following information on environmental characteristics:

- i. a list of all known historic sites, recreation areas, archaeologic sites, designated wildlife-management areas, swamps and marshes, wetlands, habitats for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility perimeter or as otherwise appropriate;**

The United States Army Corps of Engineers (USACE) states that there are wetlands within 1,000 feet of the property boundary. However, no wetlands exist within the property boundary of the facility; specifically no wetlands subject to the USACE's jurisdiction within 1,000 feet of the processing area.

Based on correspondence from the Louisiana Department of Culture, Recreation, and Tourism, and the Louisiana Department of Wildlife and Fisheries regarding this site, there are no known historic sites, recreation areas, archaeologic sites, designated wildlife-management areas, habitats for endangered species, or other sensitive ecologic areas within 1,000 feet of the facility perimeter.

- ii. documentation from the appropriate state and federal agencies substantiating the historic sites, recreation areas, archaeologic sites, designated wildlife-management areas, wetlands, habitats for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility; and**

Correspondence with the Louisiana Department of Culture, Recreation, and Tourism, the Louisiana Department of Wildlife and Fisheries and the United States Army Corps of Engineers is included in **Appendix D.**

- iii. a description of the measures planned to protect the areas listed from the adverse impact of operation at the facility;**

The United States Army Corps of Engineers (USACE) states that there are wetlands within 1,000 feet of the property boundary. However, no wetlands exist within the property boundary of the facility; specifically no

wetlands subject to the USACE's jurisdiction within 1,000 feet of the processing area.

The facility currently discharges to an established drainage system and it does not have an adverse impact to the wetlands. In addition to the small ditch surrounding the woodwaste processing area, a berm will be installed. There are no other areas located within 1,000 feet of this site.

f. A wetlands demonstration, if applicable, as provided in LAC 33:VII.709.A.4.

The United States Army Corps of Engineers (USACE) states that there are wetlands within 1,000 feet of the property boundary. However, no wetlands exist within the property boundary of the facility; specifically no wetlands subject to the USACE's jurisdiction within 1,000 feet of the processing area. See **Appendix D** for the correspondence from the (USACE).

g. Demographic Information. The estimated population density within a three-mile radius of the facility boundary, based on the latest census figures.

The estimated population within a three-mile radius of the facility is 5,413 people, based upon the U.S. Census Bureau 2000 Census information. The following table provides a comparison of the estimated total population and population density within a one, two, and three mile radius of the facility.

Radius in Miles from Facility	Estimated Total Population	Estimated Housing Units	Estimated Population Density (persons/mi ²)
1.0	12	6	4
2.0	1,512	594	120
3.0	5,413	2,036	191

Demographic documentation is provided in **Appendix E**.

2. The following information regarding wells, faults and utilities is required for Type I and II facilities:

a. Wells. Map showing the locations of all known or recorded shot holes and seismic lines, private water wells, oil and/or gas wells, operating or abandoned,

within the facility and within 2,000 feet of the facility perimeter and the locations of all locations of all public water systems, industrial water wells and irrigation wells within one mile of the facility. A plan shall be provided to prevent adverse effects on the environment from the wells and shot holes located on the facility.

This regulatory section is not applicable. This facility is classified as a Type III Woodwaste Processing Facility.

b. Faults

- i. scaled map showing the locations of all recorded faults within the facility and within one mile of the perimeter of the facility; and
- ii. demonstration, if applicable, of alternative fault set-back distance as provided in LAC 33:VII.709.A.5.

This regulatory section is not applicable. The facility is a classified as a Type III Woodwaste Processing Facility.

c. Utilities. Scaled map showing the location of all pipelines, power lines, and right-of-ways within the site.

This regulation is not applicable. The facility is a classified as a Type III Woodwaste Processing Facility.

- B. Facility Characteristics.** Standards concerning facility characteristics are contained in LAC 33:VII.709.B (Type I and II facilities), LAC 33:VII.717.B (Type I-A and II-A facilities), and LAC 33:VII.719.B (Type III facilities). A facility plan, including drawings and a narrative, describing the information required below must be provided.

1. The following information is required for all facilities:

- a. elements of the process or disposal system employed, including, as applicable, property lines, original contours (shown at not greater than five-foot intervals), buildings, units of the facility, drainage, ditches and roads;**

Greathouse is located east of Lake Street in Lake Charles, Calcasieu Parish, Louisiana (Section 18, Township 11 South, Range 8 West) near Lincoln Road. **Figure 2** illustrates the facility drainage, property lines, roads, and the facility, including associated structures.

All trucks transporting waste to the site will enter through the Lake Street entrance and proceed to the receiving area. After the waste is inspected and documented in accordance with the operational plan, trucks will then proceed to the staging area and then to the processing area.

- b. the perimeter barrier and other control measures;**

Greathouse has a fence surrounding the facility to prevent unauthorized ingress or egress, except by willful entry. Controlled access points are available for entering and exiting the facility. During operating hours, each facility entry point is continuously monitored, manned or locked. During non-operating hours, the facility entry point will be locked. The facility will post readable signs that list the types of waste that it can receive before operation begins.

- c. a buffer zone;**

A buffer zone exceeding the 50-foot requirement exists from the facility to the property line. No storage, processing, or disposal of solid waste will occur within the buffer zone.

d. fire protection measures;

Greathouse has an agreement with the local fire department for fire protection assistance. Medical assistance is provided by the Lake Charles Memorial Hospital. Correspondence from the fire department and hospital is included in **Appendix F**.

e. landscaping and other beautification efforts;

The facility is a woodwaste processing facility that is located in a predominately agricultural area. Although, additional landscaping and beautification efforts are not necessary, the facility will practice good housekeeping measures to maintain an orderly appearance.

f. devices or methods to determine, record, and monitor incoming waste;

Woodwaste loads are checked manually as they enter the front gate. The quantity of waste entering the facility is measure based on volume and is converted from cubic yards to tons using the conversion factor of 2.5 cubic yards of woodwaste equals one wet ton. The quantity is recorded in a logbook centrally located in the file system set up on site.

Incoming loads will be visually inspected by personnel with a ladder adequate to view the cargo of the incoming trailers/trucks.

No hazardous waste, PCB waste, or other unauthorized or unpermitted solid wastes are allowed past the checkpoint.

g. NPDES discharge points (existing and proposed); and

Greathouse does not operate under a LPDES Storm Water Permit. Surface water contamination is non-existent because of the benign and non-detrimental effects of the woodwaste material delivered to the site.

h. other features, as appropriate.

No additional features have been presently identified that require discussion.

2. The following information is required for Type I and II facilities:

- a. areas for isolating nonputrescible waste or incinerator ash, and borrow areas; and**

This regulation is not applicable. The facility is a Type III woodwaste processing facility.

- b. location of leachate collection/treatment/removal system.**

This regulation is not applicable. The facility is a Type III woodwaste processing facility.

- C. Facility Surface Hydrology.** Standards governing facility surface hydrology are contained in LAC 33:VII.711.A (Type I and II landfills), LAC 33:VII.713.A (Type I and II surface impoundments), LAC 33:VII.715.A (Type I and II landfarms), LAC 33:VII.717.C (Type I-A and II-A facilities), and LAC 33:VII.719.C (Type III facilities).

- 1. The following information regarding surface hydrology is required for all facilities:**

- a. a description of the method to be used to prevent surface drainage through the operating areas of the facility;**

The facility is located on natural soils of low permeability, with a portion of the operational surface being a hard topped surface. The hard topped area and the immediate adjacent areas are higher in elevation than the surrounding property. Immediately adjacent to the hard topped area are small swale ditches that will intercept and prevent run-on from entering the processing area and intercept run-off from the processing area. These features channel flow to the roadside ditch on the western side of the facility which leads into Coulee Hippolyte located south of the facility.

- b. a description of the facility runoff/run-on collection system;**

The facility is located on natural soils of low permeability, with a portion of the operational surface being a hard topped surface. The hard topped area and the immediate adjacent areas are higher in elevation than the surrounding property. Immediately adjacent to the hard topped area are small swale ditches that will intercept and prevent run-on from entering the processing area and intercept run-off from the processing area. These features channel flow to the roadside ditch on the western side of the facility which leads into Coulee Hippolyte located south of the facility.

Based on existing contours of the area, the majority of the subject property sheet flow drains into the existing roadside ditch along Lake Street, into an existing drainage feature to the east, and into Coulee Hippolyte to the south. A small ditch exists around the perimeter of the woodwaste processing area. In addition to the small ditch surrounding the woodwaste processing area, a berm will be installed to protect the facility from the 100-year flood. **Table 1** contains calculations for the ditch that surrounds the processing area

demonstrating that it can accommodate the 25 year/24 hour storm event.

- c. **the maximum rainfall from a 24-hour/25-year storm event;**

The projected maximum rainfall from a 24-hour/25-year rainfall event is 10 inches (U. S. Weather Bureau Technical Paper No. 40, 1961).

- d. **the location of aquifer recharge areas in the site or within 1,000 feet of the site perimeter, along with a description of the measures planned to protect those areas from the adverse impact of operations at the facility; and**

As shown on **Figure 6**, the facility is within an aquifer recharge zone with a low recharge potential. The facility operations will not adversely impact the aquifer recharge area because of the benign and non-detrimental effects of the woodwaste material delivered to the site.

- e. **if the facility is located in a flood plain, a plan to ensure that the facility does not restrict the flow of the 100-year base flood or significantly reduce the temporary water-storage capacity of the flood plain, and documentation indicating that the design of the facility is such that the flooding does not affect the integrity of the facility or result in the washout of solid waste.**

As shown on **Figure 3**, the facility is located in a flood plain. However, operations of the facility will not change the original elevation of the area. Therefore, the operations of the facility will not restrict the flow of the 100-year base flood or significantly reduce the temporary water-storage capacity of the flood plain.

The design of the facility is such that the flooding does not affect the integrity of the facility. The woodwaste received on site is taken from the staging area to the processing unit regularly. The ash resulting from the woodwaste processing is routinely beneficially used, which minimizes the potential of any washout during flood events.

The elevation of the 100-year flood in the vicinity of the woodwaste processing facility, based on a Flood Insurance Rate Map for Calcasieu parish, is nine feet. The elevation of the proposed facility is approximately six feet. As shown on

Figure 2 a perimeter berm will be erected around the woodwaste processing area to protect the site from the 100-year flood.

- D. Facility Geology.** Standards governing facility geology are contained in LAC 33:VII.709.C (Type I and II facilities), LAC 33:VII.717.D (Type I-A and II-A facilities), and LAC 33:VII.719.D (Type I-A and II-A facilities), and LAC 33:VII.719.D (Type III facilities).

- 1. The following information regarding geology is required for Type I and Type II facilities:**

- a. isometric profile and cross-sections of soils, by type, thickness, and permeability;**
- b. logs of all known soil borings taken on the facility and a description of the methods used to seal abandoned soil borings;**
- c. results of tests for classifying soils (moisture contents, Atterberg limits, gradation, etc.), measuring soil strength, and determining the coefficients of permeability, and other applicable geotechnical tests;**
- d. geologic cross-section from available published information depicting the stratigraphy to a depth of at least 200 feet below the ground surface;**
- e. for faults mapped as existing through the facility, verification of their presence by geophysical mapping or stratigraphic correlation of boring logs. If the plane of the fault is verified within the facility's boundaries, a discussion of measures that will be taken to mitigate adverse effects on the facility and the environment;**
- f. for a facility located in a seismic impact zone, a report with calculations demonstrating that the facility will be designed and operated so that it can withstand the stresses caused by the maximum ground motion, as provided in LAC 33:VII.709.C.2; and**
- g. for a facility located in an unstable area, a demonstration of facility design as provided in LAC 33:VII.709.C.3.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

- 2. The following information regarding geology is required by Type III woodwaste, and construction/demolition-debris facilities:**

- a. **general description of the soils provided by a qualified professional (a geotechnical engineer, soil scientist, or geologist) along with a description of the method used to determine soil characteristics; and**

A belowground air curtain destructor will be maintained and operated onsite. According to the Soil Survey of Calcasieu Parish, Louisiana, the soils are identified as Mowata-Vidrine silt loams. This complex consists of small areas of Mowata and Vidrine soils that are extremely intermingled. This soil is typically level to very gently sloping. This poorly drained soil type has a loamy surface layer and a loamy and clayey subsoil. Water and air move through it very slowly. Water runs off the surface very slowly and stands in low places for a short period after heavy rain.

The facility is located on natural soils of low permeability, with a portion of the operational surface being a hard topped surface. The hard topped surface consists of approximately 12 inches of cement stabilized soil on top of the loamy clay soils that are found in this area.

The combination of the clayey soils on the site and the cement stabilized soil provide a barrier to prevent any penetration of surface spills into groundwater aquifers underlying the area or to a sand or other water-bearing stratum that would provide a conduit to such aquifers.

- b. **Logs of all known soil borings taken on the facility and a description of the methods used to seal abandoned soil borings.**

There are no known soil borings taken on the facility.

E. Facility Subsurface Hydrology. Standards governing facility subsurface hydrology are contained in LAC 33:VII.715.A (Type I and II landfarms).

1. The following information on subsurface hydrology is required for all Type I facilities and Type II landfills and surface impoundments:

- a. delineation of the following information for the water table and all permeable zones from the ground surface to a depth of at least 30 feet below the base of excavation:**
 - i. areal extent beneath the facility;**
 - ii. thickness and depth of the permeable zones and fluctuations;**
 - iii. direction(s) and rate(s) of groundwater flow based on information obtained from piezometers and shown on potentiometric maps; and**
 - iv. any change in groundwater flow direction anticipated to result from any facility activities.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

- b. delineation of the following, from all available information, for all recognized aquifers which have their upper surfaces within 200 feet of the ground surface:**
 - i. areal extent;**
 - ii. thickness and depth to the upper surface**
 - iii. any interconnection of aquifers; and**
 - iv. direction(s) and rate(s) of groundwater flow shown on potentiometric maps.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

2. The following information on subsurface hydrology is required for Type II landfarms. Delineation of the following information for the water table and all permeable zones from the ground surface to a depth of at least 30 feet below the zone of incorporation:

- a. **aereal extent beneath the facility;**
- b. **thickness and depth of the permeable zones and fluctuations;**
- c. **direction(s) and rate(s) of groundwater flow based on information obtained from piezometers and shown on potentiometric maps; and**
- d. **any change in groundwater flow direction anticipated to result from any facilities activities.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

F. Facility Plans and Specifications. Standards governing facility plans and specifications are contained in LAC 33:VII.711.B (Type I and II landfills), LAC 33:VII.713.B (Type I and II surface impoundments), LAC 33:VII.715.B (Type I and II landfarms), LAC 33:717.E (Type I-A and II-A facilities), LAC 33:VII.721.A (Type III construction and demolition debris and woodwaste landfills), LAC 33:VII.723.A (Type III composting facilities), LAC 33:VII.725.A (Type III separation facilities). Standards for groundwater monitoring are contained in LAC 33:VII.709.E (Type I and II facilities).

1. **Certification.** The person who prepared the permit application must provide the following certification:

"I certify under penalty of law that I have personally examined and I am familiar with the information submitted in this permit application and that the facility as described in this permit application meets the requirements of the Solid Waste Rules and Regulations. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

Certification is provided in **Appendix G**. Facility plans, specifications, and operations represented and described in the permit application or permit modifications for the facility will be prepared under the supervision of and certified by a professional engineer, licensed in the state of Louisiana.

2. **The following information on plans and specifications is required for Type I and Type II facilities:**

- a. detailed plan-view drawing(s) showing original contours, proposed elevations of the base of units prior to installation of the liner system, and boring locations;
- b. detailed drawings of slopes, levees, and other pertinent features; and
- c. the type of material and its source for levee construction. Calculations shall be submitted demonstrating that an adequate volume of material is available for the required levee construction.

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility. However, Due to the fact that the location of the processing and staging areas are at elevations above the 100-year flood, diversion levees to protect the facility from the 100-year flood will not be required at this facility.

3. The following information on plans and specifications is required for Type I, II, and III landfills:

- a. approximate dimensions of daily fill and cover; and**
- b. the type of cover material and its source for daily, interim, and final cover. Calculations shall be submitted demonstrating that an adequate volume of material is available for daily, interim, and final cover.**

The facility is not classified as a landfill. Therefore, this citation is not applicable.

4. The following information on plans and specifications for the prevention of groundwater contamination must be submitted for Type I and II facilities:

- a. representative cross-sections and geologic cross-sections showing original and final grades, approximate dimensions of daily fill and cover, drainage, the water table, groundwater conditions, the location and type of liner, and other pertinent information;**
- b. a description of the liner system, which shall include: calculations of anticipated leachate volumes, rationale for particular designs of such systems, and drawings; and**
- c. a description of the leachate collection and removal system, which shall include calculations of anticipated leachate volumes, rationale for particular designs of such systems, and drawings.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

5. The following information on plans and specifications for groundwater monitoring must be provided for Type I and II facilities:

- a. a minimum of three piezometers or monitoring wells in the same zone must be provided in order to determine groundwater flow direction;**
- b. for groundwater monitoring wells, cross-sections illustrating construction of wells, a scaled map indicating well locations and the relevant point of compliance, and pertinent data on each well, presented in tabular form,**

including drilled depth, the depth to which the well is cased, screen interval, slot size, elevations of the top and bottom of the screen, casing size, type of grout, ground surface elevations, etc.;

- c. a groundwater monitoring program including a sampling and analysis plan that includes consistent sampling and analysis procedures that ensure that monitoring results provide reliable indications of groundwater quality;
- d. for an existing facility, all data on samples taken from monitoring wells in place at the time of the permit application must be included. (If this data exists in the Solid Waste Division records, the administrative authority may allow references to the data in the permit application.) For an existing facility with no wells, groundwater data shall be submitted within 90 days after the installation of monitoring wells. For a new facility, groundwater data (one sampling event) shall be submitted before waste is accepted;
- e. a plan for detecting, reporting, and verifying changes in groundwater; and
- f. the method for plugging and abandonment of groundwater monitoring systems.

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

- 6. The facility plans and specifications for Type I and II landfills and surface impoundments (surface impoundments with on-site closure and a potential to produce gases) must provide a gas collection and treatment or removal system.

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

G. Facility Administrative Procedures. Standards governing facility administration procedures are contained in LAC 33:VII.711.C (Type I and Type II landfills), LAC 33:VII.713.C (Type I and II surface impoundments), LAC 33:VII.715.C (Type I and II landfarms), LAC 33:VII.717.F (Type I-A and II-A facilities), LAC 33:VII.721.B (Type III construction and demolition debris and woodwaste landfills), LAC 33:VII.723.B (Type III composting facilities), and LAC 33:VII.725.B (Type III separation facilities).

1. The following information on administrative procedures is required for all facilities:

- a. recordkeeping system; types of records to be kept; and the use of records by management to control operations;**

Greathouse maintains records for management, including the administrative records and documentation necessary for the preparation of reports required by the LDEQ as outlined in the Solid Waste Rules and Regulations. These records will be maintained throughout the operational life of the facility and kept on file for at least three years after closure.

Greathouse maintains records of transporters transporting waste for processing at the facility. These records will include the date of receipt of shipments of waste, the volume of the material delivered, and the transporter's solid waste identification number issued by the LDEQ Office of Environmental Services, Permits Division.

Records maintained pertaining to the processing facility may include, but are not limited to the following:

- Current Louisiana Solid Waste Rules and Regulations
- The current solid waste permit
- The current solid waste permit application
- Solid waste permit modifications

The facility will maintain all applicable environmental permits, annual reports, records, and other documents specified in the permit application as necessary for the effective management of the facility and for preparing the required reports. These records will also be used to ensure compliance with state and federal regulations. Greathouse may maintain an electronic version or hard copy of the records, permits, and other documents.

An annual report will be submitted to the LDEQ indicating quantities (expressed in wet-weight tons per year) and types and sources of material processed during the reporting period. All calculations used to determine the amounts of waste processed during the annual reporting period will be submitted to the LDEQ. The form used for this purpose will be the most recently approved form obtained from the LDEQ.

The reporting period for the annual report shall be from July 1 through June 30, and terminating upon closure of the facility in accordance with the permit. The annual report will be submitted by August 1 of each reporting year.

- b. an estimate of the minimum personnel, listed by general job classification, required to operate the facility; and**

The facility will have adequate personnel necessary to safely and effectively achieve the operational requirements of the facility. The facility requires minimum personnel for efficient operation of the facility.

The minimum personnel required to operate the facility consists of a certified Level A operator in charge of the overall facility, gatekeeper, and heavy machine operator.

The facility will have the number and levels of certified operators employed at the facility as required by the department in accordance with LAC 46:Part XXIII. Operator certificates will be prominently displayed at the facility. The Board of Certification and Training for Solid Waste Disposal System Operators and the Office of Environmental Services, Waste Permits Division, will be notified within 30 days of any changes in the employment status of certified operators.

- c. maximum days of operation per week and per facility operating day (maximum hours of operation within a 24-hour period).**

The site operates Monday-Friday, from 7:00am-5:30pm. Greathouse reserves the right to increase or decrease hours of operation upon notification to the regional administrative authorities.

- 2. Administrative procedures for Type II facilities shall include the number of facility operators certified by the Louisiana**

Solid Waste Operator Certification and Training Program (R.S. 37:3151 et seq.).

This regulation is not applicable. The facility is a Type III woodwaste processing facility.

- H. Facility Operational Plans.** Standards governing facility operational plans are contained in LAC 33:VII.711.D (Type I and II landfills), LAC 33:VII.713.D (Type I and II surface impoundments), LAC 33:VII.715.D (Type I and II landfarms), LAC 33:VII.717.G (Type I-A and II-A facilities), LAC 33:VII.721.C (Type III construction and demolition debris and woodwaste landfills), LAC 33:VII.723.C (Type III composting facilities), and LAC 33:VII.725.C (Type III separation facilities).

- 1. The following information on operational plans is required for all facilities:**

- a. types of waste (including chemical, physical and biological characteristics of industrial wastes generated on-site), maximum quantities of wastes per year, and sources of waste to be processed or disposed of at the facility;**

The Greathouse facility accepts woodwaste for processing. The types of woodwaste accepted by this facility meet the definition of woodwaste and yard trash as describe in LAC 33:VII.115. Woodwaste and yard trash is a naturally formed organic material composed of cellulose, lignin, and water.

Woodwaste received at this facility is primarily generated from residential and commercial land clearing, landscaping/yard maintenance. Although the facility has an unlimited service area, the facility mainly receives waste from Calcasieu and Cameron Parishes. The maximum quantities of wastes received per year are 2600 wet tons per year.

The receipt of the followings wastes are prohibited and prevented:

- Hazardous wastes
- Liquid wastes
- Infectious wastes
- Type I industrial wastes
- Type II residential and commercial wastes including putrescible wastes
- Friable asbestos

- b. waste-handling procedures from entry to final disposition, which could include shipment of recovered materials to a user;**

Material arriving at Greathouse is delivered by transport truck. The waste material is inspected and the truck load is determined by weight upon arrival at the entrance gate. The quantity of waste entering the facility is measure based on volume. Drivers carrying approved woodwaste are then directed to the burner site to unload the woodwaste for processing. Wood waste that arrives at the burner site is checked again for unauthorized material before being unloaded on the staging area to wait for processing.

A belowground air curtain destructor will be maintained and operated onsite. The ash produced from the combustion of the woodwaste will be stored in an environmentally sound manner. The accumulated ash will be stored in an area adjacent to the processing operation. The ash will be spread (land applied) on areas of the property when a sufficient volume of material is accumulated. The ash will not be land applied when a significant chance is rain is in the near future in an effort to minimize impacts to adjacent surface waters. See **Appendix D** for BMP approval from the Louisiana Department of Agriculture & Forestry for the beneficial use of the sterilized ash. See **Appendix H** for the Operational Plan.

The following information is provided for each load and recorded in the recordkeeping system on site:

- Date
- Time
- Type of material
- Source of waste
- Volume of waste
- Delivery vehicle identification
- Delivery vehicle owner
- Delivery vehicle driver
- Transporter identification number

The unloaded material in the staging area is picked up by a front-end loader and loaded into the processing unit. The sterilized ash resulting from combustion is then utilized for beneficial use. **Figure 7** contains a process flow diagram.

Open burning shall not be practiced unless authorization is first obtained from the administrative authority and any other applicable federal, state, and local authorities.

Salvaging will be prevented unless approved by the administrative authority. Scavenging will be prevented.

Salvaging and scavenging is controlled by a gate and surrounding fence completely surrounding the facility.

Recordkeeping procedures are employed to ensure that all pertinent activities are properly documented.

c. minimum equipment to be furnished at the facility;

Sufficient equipment is provided and maintained to meet the facility's operational needs. The minimum equipment to be furnished at the facility is a processing unit (air curtain destructor) and a front-end loader.

d. plans to segregate wastes, if applicable;

A plan to segregate waste is not a requirement at the facility. However, waste determined not acceptable at the facility will be removed from the site at least every seven days. Unacceptable waste discovered at the staging area will be stored in a closed container that prevents vector and odor problems. The woodwaste processing facility will maintain a log of dates and volumes of waste removed from the facility.

e. procedures planned in case of breakdowns, inclement weather, and other abnormal conditions (including detailed plans for wet-weather access and operations);

The facility maintains its equipment so that breakdowns are infrequent. Equipment is repaired or replaced should a breakdown occur. If necessary, equipment may be rented in the interim until repairs or purchases are made.

The facility usually operate in dry weather, however there are times when rainy day operations are necessary. The process may be slowed during rain events. Drainage in all areas throughout the facility will aid in the smooth and safe operation in inclement weather.

f. procedures, equipment, and contingency plans for protecting employees and the general public from accidents, fires, explosions, etc., and provisions for emergency care should an accident occur (including proximity to a hospital, fire or emergency services, and training programs); and

All individuals within the property boundaries at the site adhere to operational guidelines. Each employee at Greathouse is instructed and expected to follow the facility's

safety rules. These rules and procedures were compiled to ensure that safe and consistent steps are followed on a variety of activities to protect employees and to minimize the potential for accidents, fires, explosions, or other emergencies. A Contingency Plan outlining facility operations and emergency procedures is included in **Appendix I**. The Plan will be updated annually or when implementation demonstrates that a revision is needed.

Lake Charles Memorial Hospital is approximately 2 miles from the facility. The City of Lake Charles Fire Department is approximate 8 miles away from Greathouse. Correspondence with the local hospital, ambulance service, and the local fire department are included in **Appendix F**.

An annual training session will be required for all employees working at the facility. A copy of the training plan is included in **Appendix J**.

g. provisions for controlling vectors, dust, litter, and odors.

Dust and odor generated from woodwaste processing activities are minimal. Minor dust and ash that are generated at the facility do not impact any off-site areas largely because of the significant buffer area surrounding the facility. All containers provide containment of wastes and thereby control litter, odor, and other pollution of adjoining areas. The facility, including equipment and waste-handling area is cleaned up routinely.

No solid waste is stored long enough to cause a nuisance, health hazard, or detriment to the environment.

2. The following information on operational plans is required for Type I and II facilities:

- a. comprehensive operational plan describing the total operation including (but not limited to) inspection of incoming waste to ensure that only permitted wastes are accepted (Type II landfills must provide a plan for random inspection of incoming waste loads to ensure that hazardous wastes or regulated PCB wastes are not disposed of in the facility.); traffic control; support facilities; equipment operation, personnel involvement; and day-to-day activities. A quality-assurance/quality-control [QA/QC] plan shall be provided for facilities receiving industrial waste; domestic sewage sludge; incinerator ash;**

friable asbestos; nonhazardous petroleum-contaminated media; and debris generated from underground storage tanks [UST], corrective action, or other special wastes as determined by the administrative authority. The QA/QC plan shall include (but shall not be limited to) the necessary methodologies; analytical personnel; preacceptance and delivery restrictions; and appropriate responsibilities of the generator, transporter, processor, and disposer. The QA/QC plan shall ensure that only permitted, nonhazardous wastes are accepted;

- b. salvaging procedures and control, of applicable; and**
- c. scavenging control.**

This regulatory section is not applicable. The facility is a Type III woodwaste processing facility.

3. The following information on operational plans is required for Type I and II landfarms:

- a. items to be submitted regardless of land use:**
 - i. a detailed analysis of waste, including (but not limited to) pH, phosphorus, nitrogen, potassium, sodium, calcium, magnesium, sodium-adsorption ratio, and total metals (as listed in LAC 33:VII.715.D.3.b);**
 - ii. soil classification, cation-exchange capacity, organic matter, content in soil, soil pH, nitrogen, phosphorus, metals (as listed in LAC 33:VII.715.D.3.b), salts, sodium, calcium, magnesium, sodium-adsorption ratio, and PCB concentrations of the treatment zone;**
 - iii. annual application rate (dry tons per acre) and weekly hydraulic loading (inches per acre); and**
 - iv. an evaluation of the potential for nitrogen to enter the groundwater.**
- b. items to be submitted in order for landfarms to be used for food-chain cropland:**
 - i. a description of the pathogen-reduction method for septage, domestic sewage sludges, and other sludges subject to pathogen production;**

- ii. crops to be grown and the dates for planting;
 - iii. PCB concentration in waste;
 - iv. annual application rates of cadmium and PCBs; and
 - v. cumulative applications of cadmium and PCBs;
 - c. items to be submitted for landfarms to be used for non food chain purposes:
 - i. description of the pathogen-reduction method in septage, domestic sewage sludges, and other sludges subject to pathogen production; and
 - ii. description of control of public and livestock access.
4. The following information on operational plans is required for Type I-A and II-A incinerator waste-handling facilities and refuse-derived energy facilities:
- a. a description of the method used to handle process waters and other water discharges which are subject to NPDES permit and state water discharge permit requirements and regulations; and
 - b. a plan for the disposal and periodic testing of ash (all ash and residue must be disposed of in a permitted facility).
5. I-A and II-A refuse-derived fuel facilities and Type III separation and composting facilities:
- a. description of the testing to be performed on the fuel or compost; and
 - b. a description of the uses for and the types of fuel/compost to be produced.
6. The operational plans for Type I-A and II-A refuse-derived fuel facilities and Type III separation and composting facilities must include a description of marketing procedures and control.

7. The operational plans for Type I and II facilities receiving waste with a potential to produce gases must include a comprehensive air monitoring plan.

This regulatory section is not applicable. The facility is a Type III Woodwaste Processing Facility.

- I. Implementation Plan. Standards governing implementation plans are contained in LAC 33:VII.709.D (Type I and II facilities), LAC 33:VII.717.H (Type I-A and II-A facilities), and LAC 33:VII.719.E (Type III Facilities).**

- 1. The implementation plans for all facilities must include the following:**

- a. a construction schedule for existing facilities which shall include beginning and ending time-frames and time-frames for the installation of all major features such as monitoring wells and liners. (Time-frames must be specified in days, with day one being the date of standard permit issuance); and**

All major features are currently installed. No additions are anticipated for the life of the facility.

- b. details on phased implementation if any proposed facility is to be constructed in phases.**

There are no plans to expand or modify the current facility or to construct a new facility.

- 2. The implementation plans for Type I and II facilities must include a plan for closing and upgrading existing operating areas if the application is for expansion of a facility or construction of a replacement facility.**

Greathouse acknowledges the above citations; however, the facility is a Type III woodwaste processing facility. Therefore, the above citations are not applicable.

- J. Facility Closure.** Standards governing facility closure are contained in LAC 33:VII.711.E (Type I and II landfills), LAC 33:VII.713.E (Type I and II surface impoundments), LAC 33:VII.715.E (Type I and II landfarms), LAC 33:VII.717.I (Type I-A and II-A facilities), LAC 33:VII.721.D (construction and demolition debris and woodwaste landfills), LAC 33:VII.723.D (Type III composting facilities), and LAC 33:VII.725.D (Type III separation facilities).

1. The closure plan for all facilities must include the following:

a. the date of final closure;

It is anticipated that the woodwaste processing facility will serve its intended purpose for the entire life of the facility. For the purposes of the solid waste application, Greathouse estimates that the facility will be closed by 2036. Greathouse will notify the LDEQ in writing at least 90 days prior to beginning closure. At that time, the date of planned closure and closure schedule, estimated cost and any changes in the approved closure plan will be submitted to the administrative authority.

b. the method to be used and steps necessary for closing the facility; and

The woodwaste processing facility will be clean closed. Clean closure procedures will be conducted to minimize or eliminate harm to human health and environment.

Equipment used at the facility will be cleaned and salvaged. All waste will be beneficially used. Therefore, off-site disposal will not necessary. An insect and rodent inspection will be conducted. Extermination measures will be conducted, if necessary.

Approval from the Administrative Authority will determine that closure is completed in accordance with an approved plan.

Greathouse understands that upon determination by the administrative authority that the facility has completed closure in accordance with the approved plan, administrative authority may release the closure fund.

c. the estimated cost of closure of the facility, based on the cost of hiring a third party to close the facility at the point in the facility's operating life when the extent and

manner of its operation would make closure the most expensive.

The estimated cost of closure for the woodwaste processing facility is **\$10,500**. The detailed closure cost estimate is presented in **Appendix K**.

2. The closure plan for Type I and II landfills and surface impoundments must include:

- a. a description of the final cover and the methods and procedures used to install the cover;
- b. an estimate of the largest area of the facility ever requiring a final cover at any time during the active life;
- c. an estimate of the maximum inventory of solid waste ever on-site over the active life of the facility; and
- d. a schedule for completing all activities necessary for closure.

Greathouse acknowledges the above citations; however, the facility is a Type III woodwaste processing facility. Therefore, the above citations are not applicable.

3. The closure plan for all Type I and II facilities and Type III woodwaste and construction/demolition debris facilities shall include the following:

- a. the sequence of final closure of each unit of the facility, as applicable;

The Greathouse woodwaste processing facility will be clean closed. Clean closure procedures will be conducted to minimize or eliminate harm to human health and environment.

Equipment used at the facility will be cleaned and salvaged. All remaining waste will be beneficially used. An insect and rodent inspection will be conducted. Extermination measures will be conducted, if necessary.

Approval from the Administrative Authority will determine that closure is completed in accordance with an approved plan.

- b. a drawing showing final contours of the facility; and**

The operation of the facility will not change the contours of the area therefore; upon closure the facility will be similar to the original contours.

- c. a copy of the document that will be filed upon closure of the facility with the official parish recordkeeper indicating the location and use of the property for solid waste disposal, unless the closure plan specifies a clean closure.**

Not applicable. The closure plan for the facility specifies clean closure.

K. Facility Post-Closure. Standards governing post-closure requirements are contained in LAC 33:VII.711.F (Type I and II landfills), LAC 33:VII.713.F (Type I and II surface impoundments), LAC 33:VII.715.F (Type I and II landfills), and LAC 33:VII.721.E (Type III construction and demolition debris and woodwaste landfills).

1. The post-closure plan for all facilities must include the following:

a. specification of the long-term use of the facility after closure, as anticipated; and

The long-term use of the area after closure activities have been completed will depend upon Greathouse's specific needs. There will be no restrictions for this area due to the nature of the material (woodwaste) being processed.

b. the cost of conducting post-closure of the facility, based on the estimated cost of hiring a third party to conduct post closure activities in accordance with the closure plan.

Not applicable. Post-closure activities are not anticipated for the facility based on the closure methodology as outlined in the response to LAC 33: VII. 521.J.

2. The post-closure plan for Type I and II facilities must include the following:

a. the method for conducting post-closure activities, including a description of the monitoring and maintenance activities and the frequency at which they will be performed;

b. the method for abandonment of monitoring systems, leachate collection systems, gas-collection systems, etc.;

c. measures planned to ensure public safety, including access control and gas control; and

d. a description of the planned uses of the facility during the post-closure period.

Greathouse acknowledges the above citations; however, the facility is a Type III woodwaste processing facility. Therefore, the above citations are not applicable.

- L. Financial Responsibility.** Standards governing financial responsibility are contained in LAC 33:VII.727. A section documenting financial responsibility according to LAC 33:VII.727 which contains the following information must be included for all facilities:

1. The name and address of the person who currently owns the land and the name and address of the person who will own the land if the standard permit is granted (if different from the permit holder, provide a copy of the lease or document which evidences the permit holder's authority to occupy the property); or

Prairie Land Company
One Lakeside Plaza, Suite 603 (P.O. Box 1048)
Lake Charles, Louisiana 70602

See Appendix A for a copy of the lease.

2. the name of the agency or other public body that is requesting the standard permit; or, if the agency is a public corporation, its published annual report; or, if otherwise, the names of the principal owners, stockholders, general partners, or officers:

Greathouse Investments, LLC is requesting the standard permit.

Carroll Greathouse-Owner

3. evidence of liability coverage, including:
 - a. personal injury, employees, and the public (coverage, carriers, and any exclusions or limitations);
 - b. property damage (coverage and carrier);
 - c. environmental risks; and

Evidence of proof of liability coverage is provided by the means specified in LAC 33:VII.727.A.1.d. Greathouse is a new facility and will submit evidence of financial assurance in accordance with LAC 33:VII.Chapter 13 at least 60 days before the date in which solid waste is first received for processing.

4. **evidence of a financial assurance mechanism for closure and/or post-closure care and corrective action for known releases when needed.**

Post-closure activities are not anticipated for the facility based on the nature of the materials and on the closure methodology outlined in LAC 33: VII. 521.J.

Greathouse will maintain financial assurance for closure by means of a mechanism that meets the requirements in LAC 33:VII.727. The amount of the financial assurance mechanism will be equal to the cost estimate for the closure of the facility.

Greathouse is a new facility and will submit evidence of financial assurance in accordance with LAC 33:VII.Chapter 13 at least 60 days before the date in which solid waste is first received for processing.

M. Special Requirements

The administrative authority may require additional information for special processes or systems and for supplementary environmental analysis.

Greathouse acknowledges that the administrative authority may require additional information for special processes or systems and for supplementary environmental analysis.

LAC 33:VII.523

PART III: ADDITIONAL SUPPLEMENTARY INFORMATION

LAC 33:VII.523

Part III: Additional Supplementary Information

The following supplementary information is required for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation:

INTRODUCTION

Environmental permit applicants (both new and existing facilities) are required to provide relevant information in response to questions commonly referred to as "IT Questions", which address the potential for facilities to adversely impact the human and natural environment in the vicinity of the proposed or existing facility. These responses must be considered by the LDEQ during the decision-making process on environmental permits pursuant to the Louisiana Supreme decision in the case of Save Ourselves, Inc. vs. Louisiana Control Commission. While this ruling was designed to address impacts associated with new facilities, existing facilities must consider the impact of continued operation versus the impacts of constructing a new facility at different locations.

Greathouse Investments, LLC (Greathouse) was granted a temporary exemption for an woodwaste processing facility to manage hurricane debris in Lake Charles, Louisiana. Since temporary exemption, Greathouse has demonstrated a record of environmental compliance and continues to provide economic benefits to the surrounding area. Greathouse is requesting a Type III Solid Waste Permit to manage woodwaste and yard waste in an environmentally safe manner on a permanent basis. Greathouse plans to use a belowground Air Curtain Destructor to burn woodwaste and yard trash and beneficially land apply on site or as approved off site.

FACILITY OVERVIEW

Greathouse Investments, LLC (Greathouse) operates a Type III woodwaste processing facility and Prairie Land Company owns the land. The facility is located east of Lake Street in Lake Charles, Calcasieu Parish, Louisiana (Section 18, Township 11 South, Range 8 West). Access to the site is via Lake Street. Greathouse operates a belowground air curtain destructor to process woodwaste. The resulting ash is land disposed on site or will be land applied offsite at approved locations.

523.A. A discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible.

Woodwaste is a naturally organic material composed of cellulose, lignin, and water. The woodwaste does not present an adverse environmental effect. Woodwaste processing significantly reduces the volume of waste entering into landfills, which in effect will extend the life of Type I, II, and III landfills. Greathouse has avoided adverse effects on the environment to the maximum extent possible.

There are no known historic or archaeological sites, as registered by the Louisiana Department of Culture, Recreation and Tourism, within 1,000 feet of the facility. In addition, there are no designated wildlife areas, habitats for listed endangered species, natural swamps or marshes located within 1,000 feet of the facility location.

Greathouse has taken measures specifically designed to protect the environment and to monitor any effects that storm water runoff from the facility might have on the environment. Greathouse has a Contingency and Emergency Procedures plan to address and minimize any hazards to the environment from fire, explosion, or any release of wastes to the air, soil, or surface waters.

The various mitigating measures incorporated into the physical configuration of the facility, in addition to the operational and institutional controls utilized at the facility, demonstrate that the environmental impacts have been avoided to the maximum extent possible. Further, the facility operates its machinery safely and efficiently so that any potential or real adverse effects on the environment are greatly minimized.

The facility is located in an agricultural area and contained within property owned by Prairie Land Company and is constructed to minimize any potential pathways for the release of contaminants. It was designed and constructed to minimize any potential pathways for the release of waste materials. The facility accepts woodwastes, and yardwastes, as defined by LAC 33:VII.115.

The facility is designed and constructed to minimize any potential pathways for the release of waste materials. The operation of the solid waste facility is designed to provide convenience, safety and environmental compliance. Employees will verify that the incoming waste is permitted for acceptance at the facility. Sufficient equipment will be provided and maintained at the facility to meet operational needs. All equipment involved in facility operations is periodically inspected and maintained to prevent breakdowns and ensure proper operation.

The potential adverse environmental effects from the proposed facility include impacts associated with litter, air contamination (odor, dust, *etc.*), groundwater contamination, surface water run-off, fires, explosions, and adverse effects associated with noise and adverse effects on adjoining properties. However, real adverse environmental effects of the facility are minimal. There are no endangered species, recreational areas, wildlife management areas, or sensitive ecological areas within 1,000 feet of the facility. Approximately 94% of the existing land use within three miles of the facility is agricultural and undeveloped land.

Hazardous wastes will not be received by the facility for processing. Hazardous wastes are wastes defined as a hazardous waste in the current Louisiana Hazardous Waste Regulations (LAC 33:V.) and/or by the Federal government under the Resource Conservation and Recovery Act and subsequent amendments.

Waste handling procedures will be a high priority at the facility. The safety of workers, the public, and the environment will be ensured by procedures at each stage of facility

operations. The facility is equipped with a device or method to determine quantity (by wet-weight); sources; and types of incoming waste.

The facility is only accessible by one road. The road is gated and remains closed and locked during non-operating hours. The gate can only be opened by employees of the facility. The gate, fence, and natural barriers that surround the facility prevent unauthorized ingress or egress, except by willful entry. A sign listing the types of waste accepted by the facility is posted at the entrance to the facility.

There are no organic vapors, gases or odors emitted from the facility that would endanger local residents or other living organisms. For these reasons, as well as the operational controls in place, there will be no impacts to the environment as a result of odor, vectors, dust or litter. The facility is an environmentally sound woodwaste processing facility with no toxic emissions or effluents.

Dust, litter, odors, pathogens, and vectors are not expected to be a problem due to the nature of the material and the facility operations. All containers will provide containment of the wastes and thereby control litter, odor, and other pollution of adjoining areas. In addition, provisions will be made for at least daily cleanup of the facility.

Given the nature of the material being utilized, the operations of the facility, and the safety and training programs, the likelihood of any impact to the general public or employees from fires, explosions, etc., is extremely remote. Although the possibility of fire or other emergencies from the operation of the facility is unlikely, emergency procedures will be in place to respond to any type of emergency that might arise at the facility. Additionally, fire protection and medical care services will also be available locally. Plans are also in place to transport seriously injured personnel to a local hospital. The emergency procedures will be reviewed annually or more often as needed.

In conclusion, no measurable adverse environmental impacts are anticipated to result from the operation of the facility. Therefore, the potential and real adverse environmental effects of facility have been avoided to the maximum extent possible.

523.B. A cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental-impact costs.

A cost-benefit analysis of the facility was not performed prior to construction; however the environmental impact costs, if any, would be expected to be minimal for the following reasons:

- The facility is simple in design and operation.
- The physical characteristics of the wastes handled are such that migration to areas outside the confinement of the facility is highly unlikely.

Greathouse provides many social and economic benefits, some of which provide positive environmental impacts. Woodwaste processed at the facility reduces the volume of waste that would otherwise be landfilled, conserving valuable landfill space and extending landfill life.

The facility is located in an area where the majority of the total existing land use within three miles of the facility is agricultural or undeveloped. Economic development will not be precluded by this application because the facility is already established and the permit application will not negatively impact the economic viability of the surrounding community.

In order to identify environmentally sensitive areas that could be affected by the facility, investigations were conducted and correspondence was sent to several Louisiana offices requesting a file review for environmentally sensitive areas near the woodwaste processing facility. The results are as follows:

- There are no known historic sites, recreation areas, designated wildlife-management areas, swamps or marshes, or habitats for endangered species within 1,000 feet of the facility perimeter.
- There are no known aquifer recharge areas within the facility or within 1,000 feet of the facility perimeter.

The permit application will allow for a continued positive economic benefit to the local community through increased employment to the parish and state as a whole through increased tax benefits. The woodwaste processing operations occurring at the location that was previously used to manage hurricane debris, will not affect the surrounding property value. There will be no public cost for police and fire protection, medical, and schools. The Calcasieu Parish Police Jury determined that the transport of woodwaste on Lincoln Road should not have a significant traffic impact. The woodwaste processing facility is located in an agricultural land use area. Greathouse does not foresee a negative impact due to dust.

523.C. A discussion and description of possible alternative projects which would offer more protection to the environment without unduly curtailing nonenvironmental benefits.

Greathouse is an existing facility located in a remote, rural area in Lake Charles. The woodwaste processing facility provides an environmentally friendly method to reduce the volume of material sent to landfills. There are no alternative projects that would offer more protection to the environment without curtailing nonenvironmental benefits. The woodwaste processing facility provides adequate environmental protection while remaining economically feasible.

The purpose of this facility is to serve as a processing facility for woodwaste and yard trash. These types of wastes may be deposited within a Type II or Type III Landfills; however, Type II and III facilities pose a significantly greater risk to the environment and are much more costly to operate. The Greathouse facility will operated as a Type III processing facility and consequently pose very little risk to the environment. Also, the

cost of operation will be much less than a Type II and III landfill and therefore allow a more cost effective processing and end-uses scenario.

Greathouse plans to receive and process woodwaste and yard waste to produce sterilized ash with the intent to beneficially use the ash. Wood ash has a liming effect of between 8 and 90 percent of the total neutralizing power of lime and can increase plant growth up to 45 percent over traditional limestone.

Any alternative waste handling or disposal method is not economically feasible and is not warranted at this time from the standpoint of environmental protection. Any alternative project would unduly curtail non-environmental benefits (cost-effective Type III woodwaste processing) and would consume public resources (public landfill capacity). Therefore, a more in-depth consideration of alternative projects is not considered necessary or appropriate since there are no measurable adverse environmental impacts of an enduring nature that have been demonstrated, and no measurable adverse environmental impacts are anticipated based on previous operational experience of the woodwaste processing.

523.D. A discussion of possible alternative sites that would offer more protection to the environment without unduly curtailing nonenvironmental benefits.

The Greathouse woodwaste processing facility operates on agriculture land. In addition, the general harmless nature of woodwaste, this facility presents very little potential or real adverse environmental effects. The facility has and will continue to operate this facility in a safe and efficient manner so that potential and real adverse effects on the environment are avoided as much as possible.

Economically feasible alternative sites were analyzing as possible facility locations. Environmental factors, social factors, and cost-related factors were critical issues in the initial site selection process. The alternative sites were not chosen primarily due to the close proximity to residential areas or airport(s).

The current site does not pose any known environmental impacts as presented below:

- The facility is not located in any environmentally sensitive areas, as documented by the governing authorities and included in the application.
- Due to the nature of the materials being processed and the low permeability soils, groundwater is protected.

The facility will abide by their air permit. Conformance with the air permit will negate possible air impacts. Although the site is vulnerable to hurricanes as evidenced by Hurricane Rita, facility operations will not be impacted due to the nature of the facility.

The facility does not propose a negative impact to the enjoyment and use of the surrounding property. The facility is located in an area zoned as light industrial. The location is not noted for aesthetic beauty, historical, or cultural sites. The site is located within a couple of miles of two churches and a school. However, the site does pose a

potential health risk or nuisance such as odors, unwanted lights, or noise to the surrounding area.

Location in an established area is the most satisfactory buffer against any potential impacts on residential or public-use areas. The alternative sites that would not offer more protection to the environment than the existing facility without unduly curtailing non-environmental benefits.

In conclusion, no measurable adverse environmental impacts of an enduring nature are anticipated to result from the continued operation of the facility.

523.E. A discussion and description of the mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

The design of the facility complies with all local, state, and federal regulations governing solid waste processing. Therefore, there are no mitigating measures which would offer more protection to the environment than this facility without unduly curtailing nonenvironmental benefits.

Greathouse has chosen the most environmentally sound and cost effective method to manage the incoming waste stream to the woodwaste processing facility.

Procedures are a high priority at the facility. The safety of workers, the public, and the environment will be ensured by procedures at each stage facility operations. Planned development training, maintenance, and emergency procedures for the facility will ensure that all operating personnel perform safe and sound operating tasks, perform required equipment maintenance and be well-trained to deal with the event of a fire or other contingency.

The Manager will have the responsibility of seeing that the facility's practices and processes are so engineered, constructed, maintained, and operated to provide safe and healthy conditions at all times.

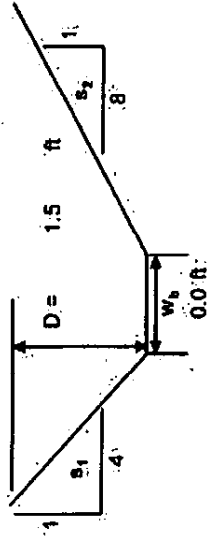
In conclusion, the facility is designed and operated to meet or exceed all applicable environmental, industry, and company standards. No measurable adverse environmental impacts of an enduring nature are anticipated to result from the operation of the facility; therefore, no additional mitigating measures are deemed necessary. Should applicable environmental standards and limitations be redefined in the future, appropriate environmental controls and mitigating measures will be designed and implemented as necessary to achieve the revised standards and limitations. Greathouse knows of no other mitigating measures, in terms of site selection, project design, project operations, or waste reduction/recycling that would offer more protection to the environment than the continued utilization of the facility without unduly curtailing non-environmental benefits.

TABLE 1
RUNOFF COLLECTION SYSTEM CALCULATIONS

RUNOFF COLLECTION SYSTEM CALCULATIONS

Inputs

D = 1.50 feet where
 S₁ = 4 h : 1 v = 0.250
 w₂ = 0 feet
 S₂ = 8 h : 1 v = 0.13
 n = 0.15
 S = 0.01



Depth of Ditch [feet]	Depth of Water [feet]	Left Side Slope		Right Side Slope		Middle Segment		Total Area [sq. ft.]	Total Wetted Perimeter [feet]
		s ₁ =	s ₂ =	s ₁ =	s ₂ =	w _b =	P ₀ =		
1.50	0.19	0.07	0.77	0.14	1.51	0.00	0.00	0.21	2.28
1.50	0.38	0.28	1.55	0.56	3.02	0.00	0.00	0.84	4.57
1.50	0.56	0.63	2.32	1.27	4.54	0.00	0.00	1.90	6.85
1.50	0.75	1.13	3.09	2.25	6.05	0.00	0.00	3.38	9.14
1.50	0.94	1.76	3.87	3.52	7.56	0.00	0.00	5.27	11.42
1.50	1.13	2.53	4.64	5.06	9.07	0.00	0.00	7.59	13.71
1.50	1.31	3.45	5.41	6.89	10.58	0.00	0.00	10.34	15.99
1.50	1.50	4.50	6.18	9.00	12.09	0.00	0.00	13.50	18.28
1.50	1.00	2.00	4.12	4.00	8.06	0.00	0.00	6.00	12.19

Depth of Water [feet]	Manning Number n	Manning Formula				Velocity of Discharge		Discharge Volume [cfs]
		Wetted Perimeter [feet]	Hydraulic Radius [feet]	Longitudinal Slope [ft/ft]	S ^{1/2}	V [ft/sec]	Q [cfs]	
d	n	P _w	A/P _w ^{2/3}	S	S ^{1/2}	V	Q	
0.19	0.15	2.285	0.092	0.01	0.100	0.20	0.04	
0.38	0.15	4.570	0.185	0.01	0.100	0.32	0.27	
0.56	0.15	6.854	0.277	0.01	0.100	0.42	0.80	
0.75	0.15	9.139	0.369	0.01	0.100	0.51	1.73	
0.94	0.15	11.424	0.462	0.01	0.100	0.59	3.13	
1.13	0.15	13.709	0.554	0.01	0.100	0.67	5.09	
1.31	0.15	15.993	0.646	0.01	0.100	0.74	7.67	
1.50	0.15	18.278	0.739	0.01	0.100	0.81	10.86	
1.00	0.15	12.185	0.492	0.01	0.100	0.62	3.72	

Formulas

$$V = 1.49/n \cdot R^{2/3} \cdot S^{1/2}$$

$$Q = A \cdot V$$

$$R = A/P_w$$

$$A_1 = a_1 + a_2 + a_0$$

$$P_w = p_1 + p_2 + p_0$$

$$a_1 = 0.5 \cdot (d/s_1)^{1/2}$$

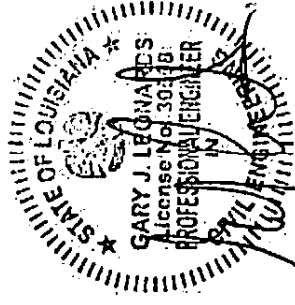
$$p_1 = (d^2 + (d/s_1)^2)^{1/2}$$

$$a_2 = 0.5 \cdot (d/s_2)^{1/2}$$

$$p_2 = (d^2 + (d/s_2)^2)^{1/2}$$

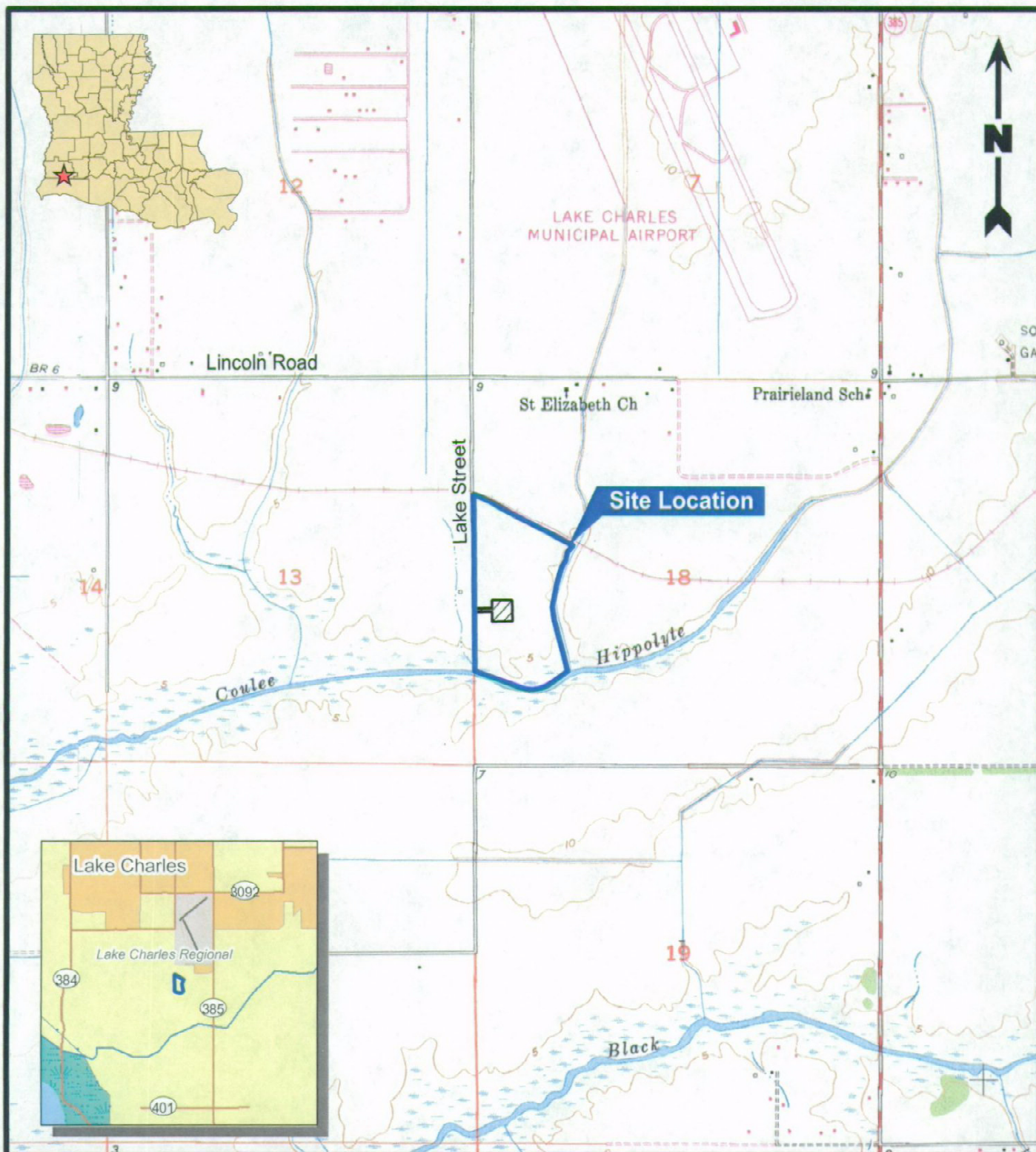
$$a_0 = w_b \cdot d$$

$$p_0 = w_b$$



9/25/08

FIGURE 1
SITE LOCATION MAP



2,000 1,000 0 2,000
Feet

Legend

- Property Boundary
- Processing Area

Reference

Base map comprised of U.S.G.S. 7.5 minute topographic maps, "Lake Charles SW, LA" and "Moss Lake, LA" dated 1955 photorevised 1975.

Site Location Map

Solid Waste Permit Application
Calcasieu Parish

Greathouse Investments, LLC
Lake Charles, Louisiana



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Doc. Code: 333-001

Dwg. No.: 333-001-A001

Drawn: LMH

Checked:

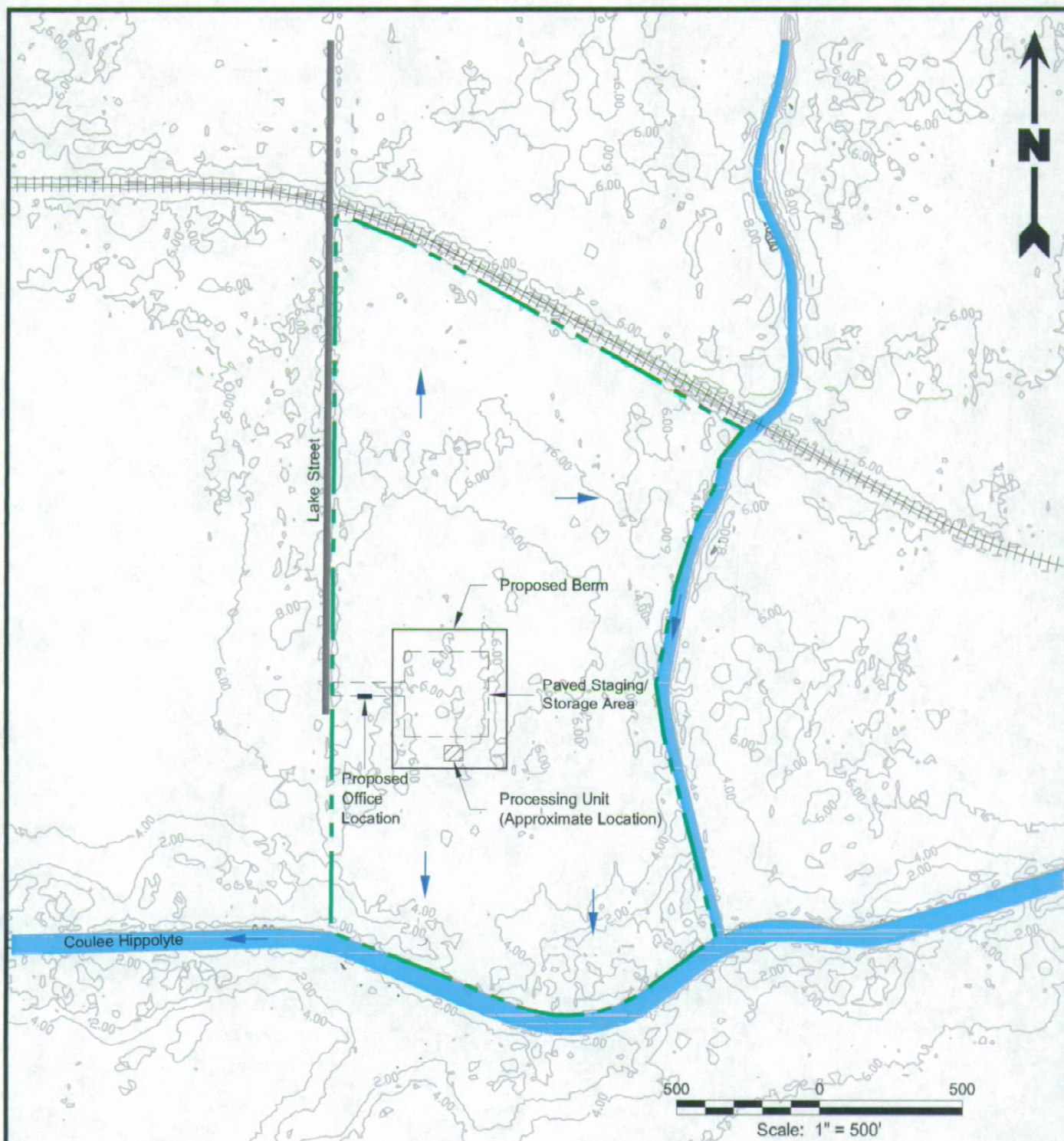
Approved:

Date: 04/13/07

1

Figure

FIGURE 2
FACILITY LAYOUT PLAN



Legend

- - - Property Boundary/ Fence
- +++++ Railroad
- ← Drainage Flow
- 8.00 — Contours (North American Vertical Datum of 1988)

Facility Layout Plan and General Surface Drainage Map

Solid Waste Permit Application
Calcasieu Parish

Greathouse Investments, LLC
Lake Charles, Louisiana



PROVIDENCE

Drawn By	LMH	04/24/08
Checked By	DRA	04/24/08
Approved By	GJL	04/24/08

Project Number
333-001
Drawing Number
333-001-A008

2
Figure

FIGURE 3
FLOOD ZONE MAP



Legend

- Property Boundary
- Processing Area
- Zone A = 100 Year Flood Plain (No Elevation)
- Zone X = Area of Minimal Flood Hazard
- Zone X500 = Outside of the 500 Year Flood Plain

Reference

Base map comprised of U.S.G.S. 7.5 minute topographic maps "Moss Lake, LA" and "Lake Charles, LA" dated 1955 photorevised 1975, and "Lake Charles, LA" and "Westlake, LA" dated 1955 photorevised 1997 and 1975. Flood zone data obtained from the Louisiana Oil Spill Coordinators Office (LOSCO) 1999 dataset.



Flood Zone Map

Solid Waste Permit Application

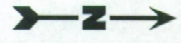
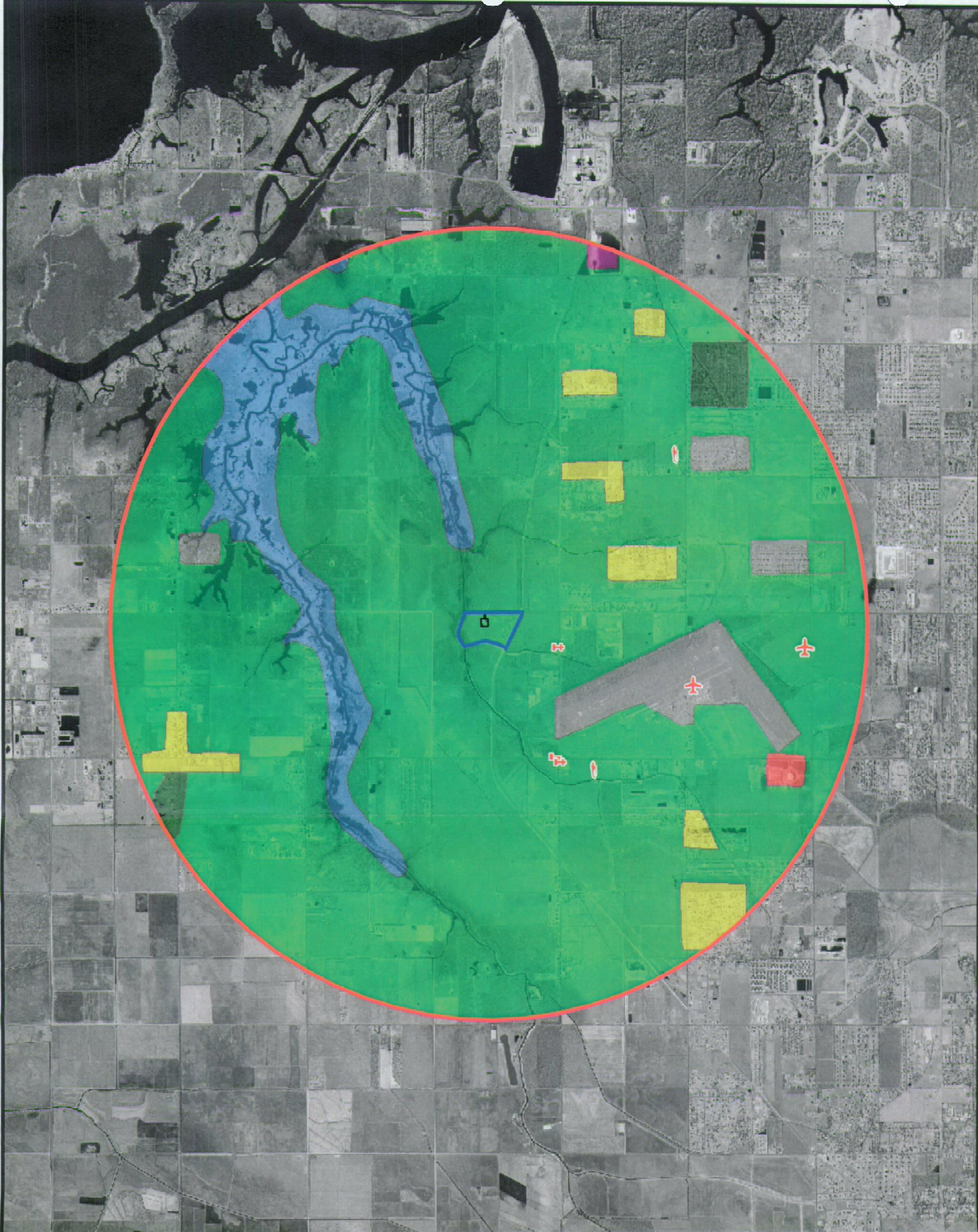
Greathouse Investments, LLC
Lake Charles, Louisiana



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Date:	04/13/07				
Dwg. No.:	333-001-B003				

FIGURE 4
EXISTING LAND USE MAP



Legend

- Property Boundary
- Processing Area
- 3 Mile Radius
- Commercial Services
- Cropland and Pasture
- Forested
- Industrial
- Wetlands
- Residential
- Transportation, Communications and Transitional Areas
- Airport
- Church
- Helipoint
- School

Reference

Base map comprised of 2005 aerial photograph.
 Airport, church, helipoint and school data obtained from U.S. Geological Survey, 19810501, Geographic Names Information System (GNIS).
 Land Use Land Cover Data obtained from the United States Geological Survey (USGS) data set.



Existing Land Use Map

Solid Waste Permit Application

Greathouse Investments, LLC

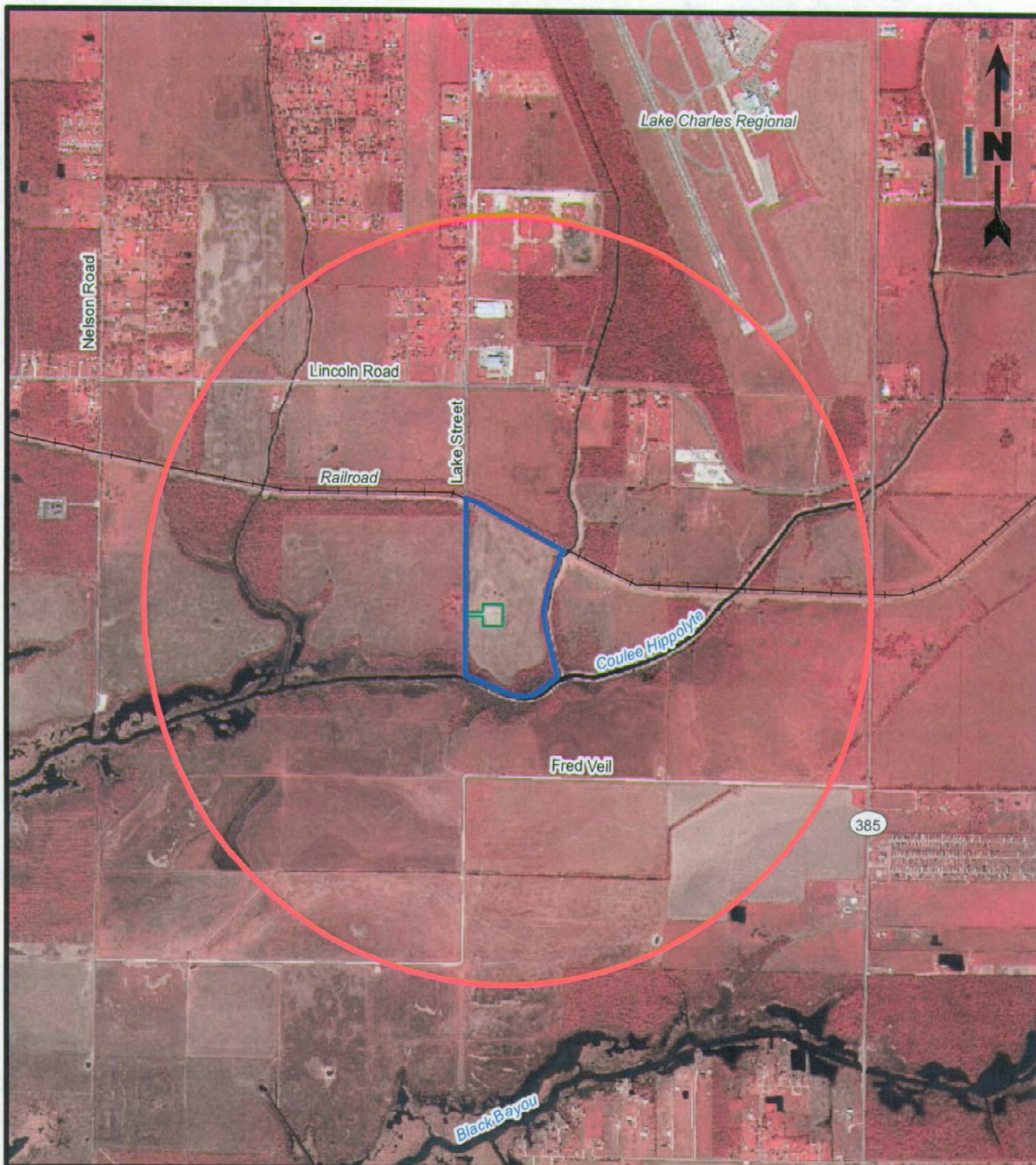
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FIGURE 5
AERIAL PHOTOGRAPH



2,000 1,000 0 2,000 Feet

Legend

- Property Boundary
- Processing Area
- One Mile Radius

Reference

Base map comprised of 2005 aerial photograph.

Aerial Photograph

Solid Waste Permit Application
Calcasieu Parish

Greathouse Investments, LLC
Lake Charles, Louisiana



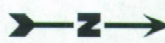
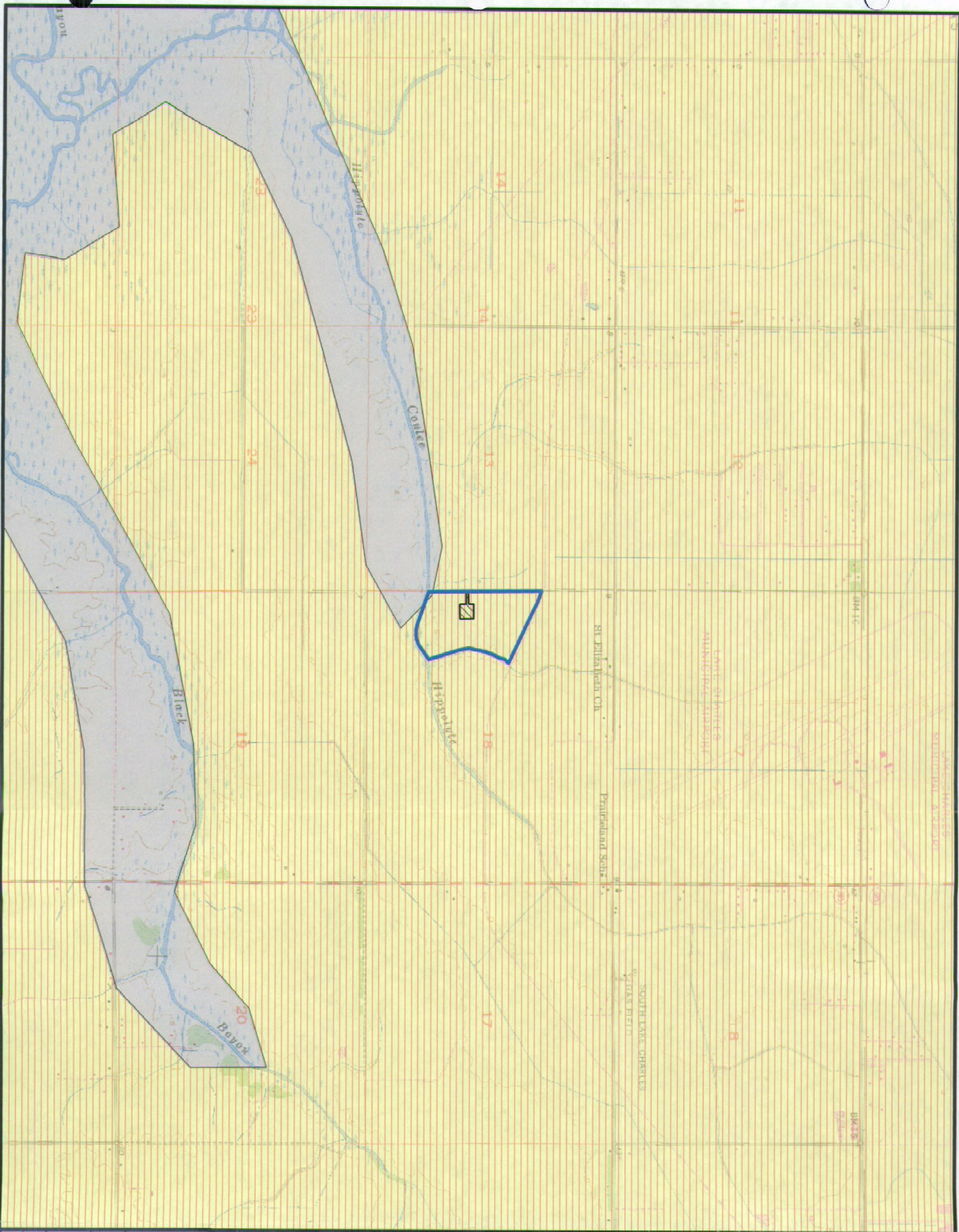
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Dwg. No.: 333-001-A005

Drawn: LMH
Checked:
Approved:
Date: 04/13/07

5
Figure

FIGURE 6
AQUIFER RECHARGE MAP



Legend

- Property Boundary
- Processing Area
- Aquifer System
- Alluvial
- Chicot/Terraces
- Aquifer Recharge Potential
- Low Recharge Potential
- Areas that do not Recharge Major Louisiana Freshwater
- Aquifers

Reference

Base map compiled of U.S.G.S. 7.5 minute topographic maps, "Lake Charles, LA" and "Lake Charles, LA" dated 1955, 1975, and "Lake Charles, LA" and "Westlake, LA" dated 1955. Aquifer data obtained from the Louisiana Oil Spill Coordinator's Office (LOSCO) 1999 dataset.



Aquifer Recharge Map

Solid Waste Permit Application

Greathouse Investments, LLC

Lake Charles, Louisiana



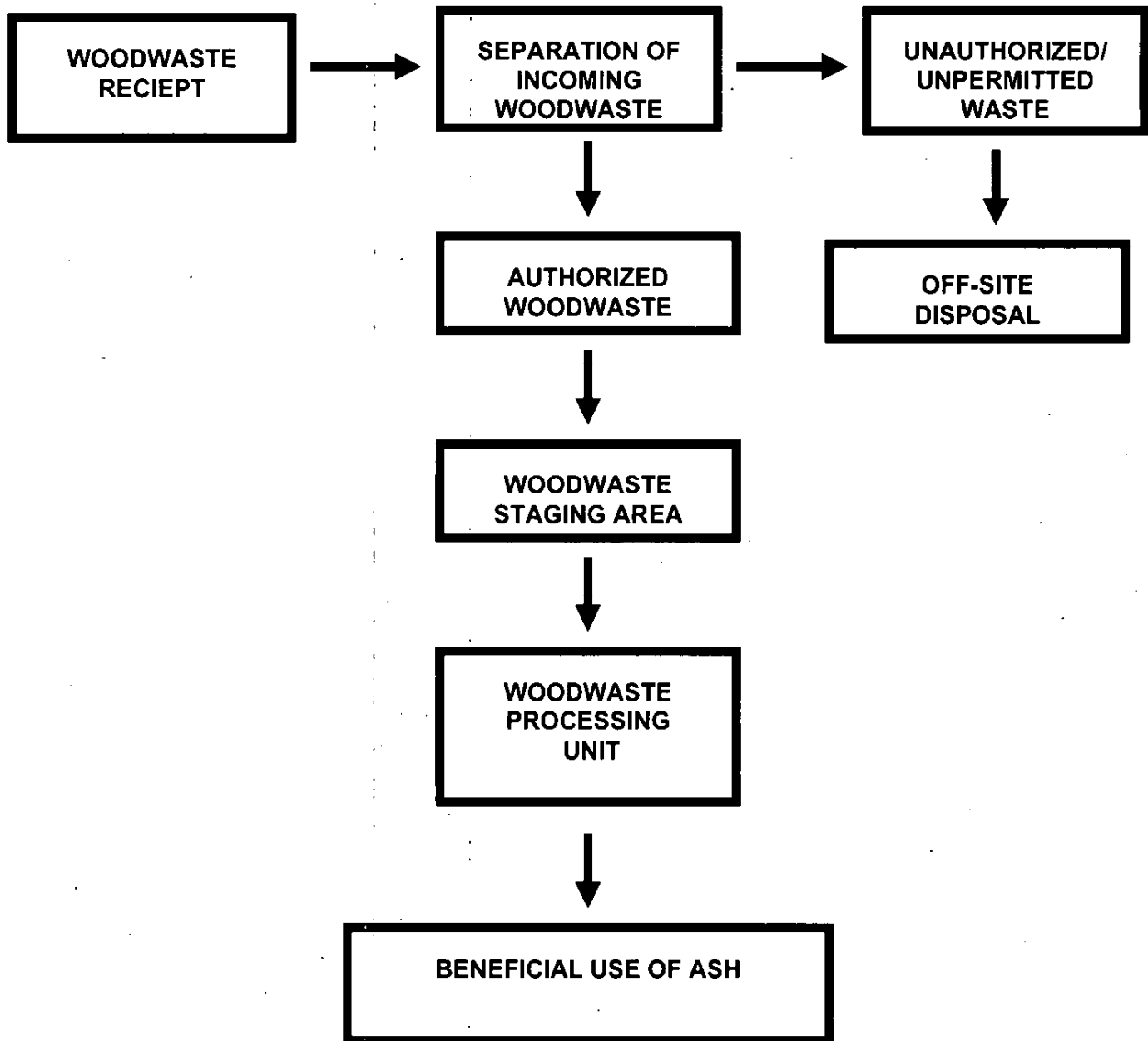
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ENVIRONMENTAL GROUP, LLC

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Dwg. No.:	333-001-B006	Checked:	
		Approved:	
		Date:	04/13/07
		Figure	6

FIGURE 6
AQUIFER RECHARGE MAP

FIGURE 7
PROCESS FLOW
DIAGRAM

PROCESS FLOW DIAGRAM



APPENDIX A
LEASE AGREEMENT

STATE OF LOUISIANA

PARISH OF CALCASIEU

This agreement is made by and between **PRAIRIE LAND COMPANY**, owner of the lands described below, One Lakeside Plaza, Suite 603, Post Office Box 1048, Lake Charles, Louisiana 70602, hereinafter referred to as "Owner"; and **CARROLL GREATHOUSE D.B.A. GREATHOUSE CONSTRUCTION** whose address is 1888 East Lincoln Road, Lake Charles, Louisiana 70607, hereinafter referred to as "Lessee."

1.

Term of Lease and Property Description. Owner does hereby lease unto Lessee, commencing on November 3, 2007, and terminating on November 3, 2012, certain lands located in the Parish of Calcasieu, State of Louisiana, described as follows:

TOWNSHIP 11 SOUTH-RANGE 8 WEST

That parcel as shown on the attached plat in the West Half of the Southwest Quarter of Section 18 lying North of the Hippolyte Coulee.

2.

Purpose. This lease is made for the purpose burning trees and brush on the above described lands and Owner does hereby warrant the said Lessee the peaceful possession thereof against all claimants during the terms of this lease.

3.

Consideration. The cash rent for this lease, which is payable on or before November 3, shall be the sum of \$2,500.00 per year,

4.

Indemnity. This lease is made upon the express condition that Owner shall be free from all liabilities and claims for damages and/or suits for or by reason of any injury or injuries to any persons or damage to property of any kind whatsoever, whether the person or property of Lessee, its agents or employees, or the third person, from any cause or causes (including hazardous material), whatsoever while in or upon said premises or any part thereof during the term of this lease, or any renewal thereof, or occasioned by any occupancy or use of

said premises, or any activity by Lessee in connection therewith, and Lessee hereby covenants and agrees to indemnify and save harmless the Owner from all losses, damages, liabilities, charges, expenses, fines, penalties, attorneys fees and costs on account of or by reason of any such injuries, liabilities, claims, suits or losses however occurring, or damages growing out of any activity by Lessee. This indemnity shall inure, by stipulation pour autrui, to the benefit of agents, directors, officers, employees and servants of Owner, and any one of them may exercise this right of indemnity against Lessee independently of Owner or of others.

"Hazardous Material" shall mean all materials or substances which have been determined to be, or may be, hazardous to health or environment, including, but not limited to, (a) solid or hazardous waste as defined in the Resource Conservation and Recovery Act or in any other applicable Federal, State or local law, rule or regulation; (b) hazardous substances as defined in the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments and Reauthorizations Act, or in any other applicable Federal, State or local law, rule or regulation; (c) gasoline, or any other petroleum product or byproduct, or other hydrocarbon derivative; (d) toxic substances regulated by the Toxic Substance Control Act or by other applicable State, Federal or local laws, regulations or ordinances; (e) insecticides, rodenticides and fungicides and other substances regulated by the Federal insecticide, fungicide and rodenticide Act or by other applicable State, Federal, or local laws, regulations or ordinances; (f) asbestos; (g) radon. Reference to any act, statute, regulation or rule shall include amendments as that are made from time to time.

5.

Owner's Use of Premises Owner reserves unto itself, its agents, servants, employees, and permittees the rights of ingress to and egress from the leased premises.

6.

Return of Premises and Appurtenances The said premises and appurtenances, including fences, gates, locks, keys, and other fixtures and attachments are delivered in good order and Lessee is obligated to keep all of same in like good working order during the term of this lease and to return the property at the expiration of this lease in as good a condition as when received, conditions resulting from the usual and intended use thereof being expected.

7.

Subleasing. Lessee shall have the right to use and occupy the said premises for purposes stated herein only. Lessee shall not have the right to sublease said property without the prior written permission of Owner, and any attempt to sublease the said premises without the prior written consent of Owner shall, at Owner's option, terminate this lease effective immediately.

8.

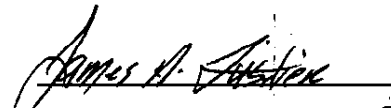
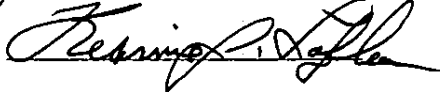
Removal of Lessee's Property. At the end of this lease, Lessee agrees to remove all of its materials, machinery, equipment and improvements from the leased premises within thirty (30) days following the expiration of this lease, or any renewal thereof, and upon Lessee's failure to do so, title thereto shall immediately vest in Owner and Lessee shall forfeit any rights therein. Owner shall then be free to remove, sell or lease any such materials, machinery, equipment or improvements, at Owner's cost and at no obligation to Lessee.


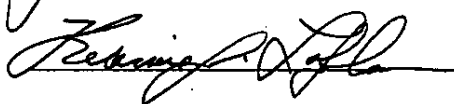
9.

Subordination. This lease is made subject, and is subordinate, to existing rights of way, easements, servitudes and oil and gas leases now affecting the property

Owner and Lessee hereby agree to the above terms effective the 3rd day of November, 2007.

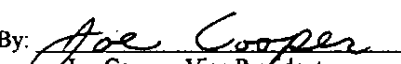
WITNESSES:

LESSOR:

PRAIRIE LAND COMPANY

By: 
Joe Cooper, Vice President

LESSEE:

GREATHOUSE CONSTRUCTION

By: 
Carroll Greathouse

STATE OF LOUISIANA

PARISH OF CALCASIEU

On this 20th day of November, 2007, before me appeared JOE COOPER, to me personally known, who, being by me duly sworn, did say that he is the Vice President of PRAIRIE LAND COMPANY, and the foregoing instrument was signed in behalf of said corporation by authority of its Board of Directors and said JOE COOPER, acknowledged said instrument to be the free act and deed of said corporation.

Virginia Crow
NOTARY

VIRGINIA CROW #67500

Notary Public, Calcasieu Parish, LA

My Commission is Issued For Life

STATE OF LOUISIANA

PARISH OF CALCASIEU

On this 20th day of November, 2007, before me appeared CARROLL GREATHOUSE, to me personally known, who, being by me duly sworn, did say that he is the sole proprietor of GREATHOUSE CONSTRUCTION, and acknowledged that he executed the same as his free act and deed and in the capacity therein stated.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Virginia Crow
NOTARY

VIRGINIA CROW #67500

Notary Public, Calcasieu Parish, LA

My Commission is Issued For Life

APPENDIX B
ZONING AFFIDAVIT



CALCASIEU PARISH POLICE JURY
GOVERNING AUTHORITY OF CALCASIEU PARISH, LOUISIANA

DIVISION OF PLANNING AND DEVELOPMENT

P.O. Drawer 3287
Lake Charles, Louisiana 70602-3287
337/ 721-3400
800/826-6092
Fax 337/ 437-4100
www.ccpj.net

February 19, 2007

Mr. Steve Aguiard
LA Dept. of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312

COPY

Dear Mr. Aguiard:

This is to advise that the Calcasieu Parish Planning and Zoning Board approved an application for a zoning exception at their regular meeting on November 14, 2006 for a burn site located on the east side of Lake Street in Ward Three of Calcasieu Parish provided that the applicant utilizes an air curtain.

This site was operated by Mr. Carroll Greathouse as a burn site immediately after Hurricane Rita. Mr. Greathouse intends to submit an application to your Department requesting a permit to operate as a burn site. The Planning and Zoning Board approved this site due to the tremendous amount of wood debris still located on private property within Calcasieu Parish.

Your favorable consideration of Mr. Greathouse's application would be appreciated.

Sincerely,

Original Signed by
James J. Vickers

James J. Vickers, Director
Planning and Development


JJV/kg

cc: Mr. Carroll Greathouse ✓

CALCASIEU PARISH POLICE JURY

DIVISION OF PLANNING & DEVELOPMENT

P.O. DRAWER 3287 LAKE CHARLES, LA 70602-3287 PH: (337) 721-3610 or 1-800-825-6092 FAX: (337) 437-4100

APPLICATION ID 65762	FILING DATE 8-Nov-2005	APPLICATION TAKEN BY INITIALS DR	
APPLICATION TYPE DEVELOPMENT			
DEVELOPMENT TYPE INDUSTRIAL	MANUFACTURED HOME PARK (# OF SPACES) 0		

OWNER INFORMATION	APPLICANT INFORMATION	CONTRACTOR INFORMATION
PRAIRIE LAND CO PO BOX 1048 LAKE CHARLES, LA. 70602	GREATHOUSE CONSTRUCTION 1888 E. LINCOLN ROAD LAKE CHARLES, LA. 70607 (337)532-2855	

DEVELOPMENT REQUIREMENTS			
ZONING NAME I-1	Light Industrial	PROPOSED USE Any Use	
PERMITTED SIGN On-site signs shall conform to Article IV, Division 2, Section 26-22.			
MIN LOT SIZE 10,000 square feet			
MAX FLOOR AREA None			
FRONT YARD	30 feet	EST. DEVELOPMENT COST	\$0.00
REAR YARD	None	TTL SQ FT UNDER ROOF 0	DEVELOPMENT FEE \$0.00
SIDE YARD	None		
MAX HEIGHT 100 feet	# OF STORIES 0	TOTAL DEVELOPMENT FEE	\$0.00
REMARKS: OUTDOOR BURNING PERMIT; SUBJECT TO CONDITIONS OF RESOLUTION ADOPTED ON 10/11/05; NOT TO EXCEED 1 YR FROM THIS DATE OR UPON COMPLETION OF HURRICANE RITA DISASTER CLEAN-UP			

ELECTRICAL INFORMATION			
ELECTRICAL CONTRACTOR NAME	UTILITY COMPANY		
ELECTRICAL ACCT.		TEMPORARY SERVICE FEE	\$0.00
NUMBER OF CIRCUITS 0		MANUFACTURED HOME FEE	\$0.00
COST PER CIRCUIT \$2.00		MECHANICAL PLANT FEE	\$0.00
TOTAL COST OF CIRCUITS \$0.00		SERVICE FEE	\$0.00
		ELECTRICAL FILING FEE	\$0.00
		TOTAL ELECTRICAL FEE	\$0.00

PLUMBING INFORMATION			
PLUMBING CONTRACTOR NAME	LICENSE NUMBER		
# OF FIXTURES 0		PLUMBING FLAT FEE	\$0.00
COST PER FIXTURE \$5.00		PLUMBING FILING FEE	\$0.00
TOTAL COST OF FIXTURES \$0.00		TOTAL PLUMBING FEE	\$0.00
Any person who performs plumbing work as defined by the Louisiana Plumbing Law, R.S. 1377 shall possess a license issued by the Louisiana State Plumbing Board. A Master Number shall properly designate his employing entity to the Board. Any questions concerning compliance shall be addressed to the Board.			

LEGAL DESCRIPTION			
SECTION 18	TOWNSHIP 11	RANGE 08	BLOCK 340 LOT 3 WARD 3
PIN 18110800003400001		SUBD NAME	
ADDRESS: LAKE ST		LOCATION: SOUTH END OF LAKE STREET OFF OF LINCOLN ROAD. EAST SIDE OF THE ROAD.	

FLOOD ZONE INFORMATION			
FLOOD ZONE	REQUIRED B.F.E.	GROUND ELEVATION	DATE
SURVEYOR/ENGINEER	REG. #	FLOOR ELEVATION	DATE
COMMUNITY	PANEL # 0575B	DIAG #	FIRM DATE 8-Jun-1998
FLOOD CERTIFICATE PROVIDED?	FLOOR ELEVATION REQUIRED?		
COMMENTS:			

HEALTH APPROVAL? #	SANITARIAN NAME		
I, the undersigned, fully understand and agree to abide by the rules and regulations as outlined in Calcasieu Parish Police Jury Flood Insurance Ordinance No. 2900, as amended; the Parish Zoning Ordinance No. 1927, as amended, by Ordinance No. 3940, as amended; and the Parish Electrical Ordinance No. 2728, as amended; and the Parish Plumbing Ordinance No. 3431, as amended.			
PERMIT NUMBER 65762	AMOUNT DUE \$ 0.00	AMOUNT RECEIVED \$ 0.00	BY
SIGNATURE <i>Greathouse</i>		DATE 11/27/05	PAYMENT TYPE
		DATE 8-Nov-2005	PAYMENT #

APPENDIX C
PUBLIC NOTICE

CAPITAL CITY PRESS

Publisher of
THE ADVOCATE

PROOF OF PUBLICATION


The hereto attached notice was published in THE ADVOCATE, a daily newspaper of general circulation published in Baton Rouge, Louisiana, and the official Journal of the State of Louisiana, the City of Baton Rouge, and the Parish of East Baton Rouge, in the following issues:

04/24/07


Susan A. Bush, Public Notices Clerk

Sworn and subscribed before me by the person whose signature appears above:

April 24, 2007


Pegeen Singley, Notary Public, #66565
My Commission Expires: Indefinite
Baton Rouge, Louisiana

PROVIDENCE ENGINEERING
JOHN PRICE
PO BOX 84380
BATON ROUGE

LA 70884-4380

3810539

Public Notice
of
Intent To Submit Permit Application
Greathouse Investments, LLC
Lake Street, Lake Charles,
Calcasieu Parish, Louisiana

Notice is hereby given that Greathouse Investments LLC does intend to submit to the Louisiana Department of Environmental Quality, Office of Environmental Services, Water and Waste Permits Division, an application for a permit to operate a Type III Wood waste Processing Facility in Calcasieu Parish, Range 8 West, Township 11 South, Section 18, which is located in Lake Charles approximately 10 miles west of Holmwood, LA.

Comments concerning the facility may be filed with the secretary of the Louisiana Department of Environmental Quality at the following address:

Louisiana Department of Environmental Quality
Office of Environmental Services
Water and Waste Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

3610539-apr 24-11

Public Notice

of

Intent To Submit Permit Application
Greathouse Investments, LLC
Lake Street, Lake Charles,
Calcasieu Parish, Louisiana

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Louisiana Department of Environmental Quality
Office of Environmental Services
Water and Waste Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

April 24, 2011
346999

Affidavit of Publication

STATE OF LOUISIANA

Parish of Calcasieu

Before me the undersigned authority, personally came and appeared



who being duly sworn, deposes and says:

He/She is a duly authorized agent of

LAKE CHARLES AMERICAN PRESS

a newspaper published daily at 4900 Highway 90 East,

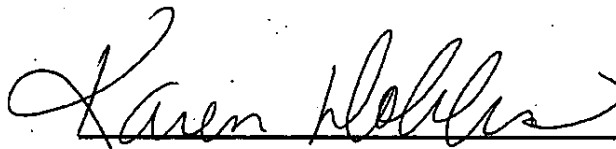
Lake Charles, Louisiana, 70615. (Mail address: P.O. Box 2893

Lake Charles, LA 70602)

The attached Notice was published in said newspaper in its issue(s)
dated:

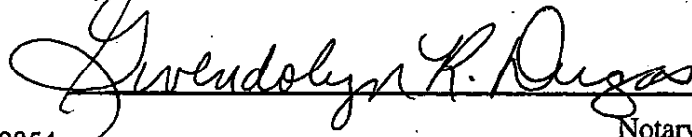
00346999 - \$41.00

April 24, 2007



Duly Authorized Agent

Subscribed and sworn to before me on this 24th day of April, 2007 at
Lake Charles, LA



19100854

Notary Public

PROVIDENCE ENGINEERING AND

19100854
PROVIDENCE ENGINEERING AND
ENVIRONMENTAL GROUP, LLC
YOLUNDA RIGHTEOUS
1201 MAIN STREET
BATON ROUGE, LA 70802

Gwendolyn R. Dugas
#056523

APPENDIX D
AGENCY CORRESPONDENCE



MITCHELL J. LANDRIEU
LIEUTENANT GOVERNOR

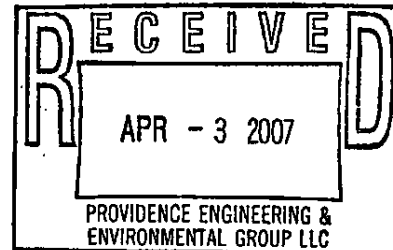
State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF STATE PARKS

ANGÈLE DAVIS
SECRETARY

STUART JOHNSON, PH.D.
ASSISTANT SECRETARY

March 30, 2007

Mr. John P. Price
Providence Engineering
1201 Main Street
Baton Rouge, LA 70802



Re: Providence Engineering Project No. 333-001

Dear Mr. Price,

I am in receipt of your solicitation of views request for a solid waste permit for Greathouse Investments, LLC near Lake Charles, Louisiana.

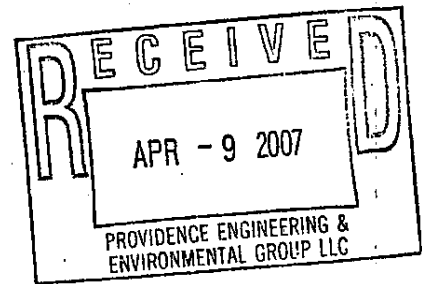
The Division of Outdoor Recreation in the Louisiana Office of State Parks administers the Land and Water Conservation Fund program for Louisiana. In this capacity we compile an inventory of recreational sites within the state for publication in the Statewide Comprehensive Outdoor Recreation Plan (SCORP) published periodically. The most recent SCORP was published for the period of 2003-2008 with an inventory developed in 2003.

Based on the information provided, there does not appear to be any conflict regarding this permit request with existing recreational facilities identified in the most recent SCORP.

Sincerely,

A handwritten signature in dark ink, appearing to read "C. Hardman".

Cleve Hardman
Director of Outdoor Recreation



KATHLEEN BABINEAUX BLANCO
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE & FISHERIES
Post Office Box 98000
BATON ROUGE, LA 70898-9000
(225) 765-2800

BRYANT O. HAMMETT, JR.
SECRETARY

Date April 5, 2007
Name John P. Price
Company Providence Engineering & Environmental Group LLC
Street Address 1201 Main Street
City, State, Zip Baton Rouge, LA 70802
Project Greathouse Investments, LLC
Solid Waste Permit Application
Providence Engineering Project # 333-001
Invoice Number 07040504

Personnel of the Habitat Section of the Fur and Refuge Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

Nicole Lerang for
Gary Lester, Coordinator
Natural Heritage Program



KATHLEEN BABINEAUX BLANCO
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT



JOHNNY B. BRADBERRY
SECRETARY

P. O. Box 1430
Lake Charles, Louisiana 70602
(337) 437-9100 / 1-800-752-6706
April 26, 2007

Mr. John Price
Environmental Scientist
Providence Engineering & Environmental Group
P. O. Box 31
Sulphur, LA 70664

Dear Mr. Price:

Your facility is not located on a state highway therefore I have no comment on the adequacy of area roadways.

ROBERT H. HENNIGAN, P.E.
DISTRICT ENGINEER ADMINISTRATOR

RHH:jga
Calcph2doc



CALCASIEU PARISH POLICE JURY
GOVERNING AUTHORITY OF CALCASIEU PARISH LOUISIANA

DIVISION OF ENGINEERING & PUBLIC WORKS

P.O. Drawer 3287
Lake Charles, Louisiana 70602
337/ 721-3700
Fax 337/ 437-3514
LA Only 1-800-542-7623
www.cppj.net

November 8, 2007

Providence
Attn: Mr. John P. Price
Environmental Scientist
P.O. Box 31
Sulphur, LA 70664

Ref: Greathouse Investments, LLC
Solid Waste Permit Application-Lincoln Road

Dear Mr. Price:

We have reviewed the information requested for the Wood Waste Processing Facility Application utilizing Lincoln Road as a route of access.

The estimated 10 truckloads per day to enter the facility should not have a significant traffic impact on Lincoln Road. However, to determine the ability of the road to withstand the weight of the vehicles serving the facility would require further investigation to determine the pavement thickness and strength of the subbase materials. You may contact local geotechnical firms who can provide the services required to make this determination.

If you have any questions, please give my office a call at 721-3700.

Sincerely,

Tim Conner, P.E.
Assistant Parish Engineer

TC/lml

cc: Claude D. Smart, Parish Engineer



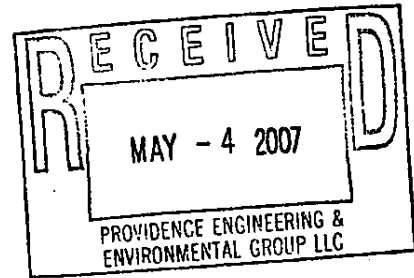
PROVIDENCE

ENGINEERING & ENVIRONMENTAL GROUP LLC

1201 Main Street
Baton Rouge, LA 70802
(225) 766-7400

P.O. Box 31
Sulphur, LA 70664
(337) 628-0066

450 E. Pass Rd., #106
Gulfport, MS 39507
(228) 897-7676



1200 Walnut Hill Lane, #1000
Irving, TX 76038
(972) 550-9326

March 29, 2007

State of Louisiana
Department of Culture, Recreation and Tourism
Office of Cultural Development
Division of Archaeology
P.O. Box 44247
Baton Rouge, Louisiana 70804
Attn: Ms. Pam Breaux
State Historic Preservation Officer

Date: 5-2-07

No known archaeological sites or historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Pam Breaux:
State Historic Preservation Officer

Ref: Request for Information
Greathouse Investments, LLC
Solid Waste Permit Application
Type III Woodwaste Processing Facility
Providence Engineering Project No. 333-001

Dear Ms. Breaux:


Greathouse Investments, LLC (Greathouse) operates a woodwaste processing facility in accordance with Louisiana Department of Environmental Quality (LDEQ) solid waste regulations. Currently, Greathouse is applying for a solid waste permit.

As part of the application process and in accordance with LAC 33:VII.521.A.1.e.ii of the Louisiana Solid Waste Regulations, facilities are requested to provide documentation from the appropriate state and federal agencies substantiating the historic sites, recreation areas, archaeological sites, designated wildlife-management areas, swamps and marshes, wetlands, habitats for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility.

Please respond with a letter to this address documenting whether any of the aforementioned environmentally sensitive areas are located within 1,000 feet of the facility. Greathouse is located east of Lake Street, Lake Charles, Calcasieu Parish, Louisiana (Section 18, Township 11 South, Range 8 West). For your review, please see the attached location map depicting the facility.

Thank you for your assistance in this matter. If you have any questions, please do not hesitate to call me at (225) 766-7400.

Sincerely,
Providence Engineering and Environmental Group LLC


John P. Price

MAR 30 2007

Enclosure: As stated
333-001-001DK



CALCASIEU PARISH POLICE JURY
GOVERNING AUTHORITY OF CALCASIEU PARISH, LOUISIANA

DIVISION OF ENGINEERING & PUBLIC WORKS

P.O. Drawer 3287
Lake Charles, Louisiana 70602
337/721-3700
Fax 337/437-3514
LA Only 1-800-542-7623
www.cppj.net

March 24, 2008

Greathouse Investments, LLC.
ATTN: Carroll Greathouse
1888 East Lincoln Road
Lake Charles, LA 70607

FAX: (337) 477-0697

Ref: Type III Wood Waste Processing
AI# 132768 / GD-019-12749
Calcasieu Parish, Louisiana

Dear Mr. Greathouse:

The traffic generated by the proposed wood waste processing facility at the south end of Lake Street will have no adverse impact on the traffic flow of the area roadways. The construction of the road is sufficient to withstand the weight of the proposed vehicles with trailers.

As with all parish roads, Calcasieu Parish reserves the right to withdraw approval in the future if the public safety is adversely impacted or future funding for maintenance is not forthcoming.

Please advise if you have any questions.

Sincerely,

Claude D. Smart, P.E.
Parish Engineer

cc: Jimmy Vickers, Director of Planning
Tim Conner, Asst. Parish Engineer

SERVICE • VISION • LEADERSHIP



DEPARTMENT OF THE ARMY

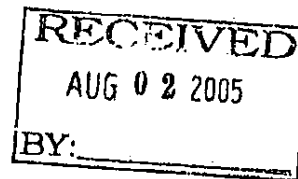
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

July 26, 2005



Operations Division
Surveillance and Enforcement Section

Mr. R. Scott Kemmerer
Arabie Environmental Solutions
P. O. Box 928
Lake Charles, Louisiana 70602

Dear Mr. Kemmerer:

Reference is made to your request, on behalf of Greathouse Construction, for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Section 18, Township 11 South, Range 8 West, Calcasieu Parish, Louisiana (enclosed map). Specifically, this property is identified as a 2.0-acre tract on and east of Lake Street.

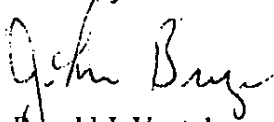
Based on review of recent maps, aerial photography, soils data, and the information provided with your request, we have determined that this property is not in a wetland subject to Corps' jurisdiction. A Department of the Army permit under Section 404 of the Clean Water Act will not be required for the deposition or redistribution of dredged or fill material on this site.

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in your request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If the property owner or tenant is a USDA farm participant, or anticipates participation in USDA programs, a certified wetland determination should be requested from the local office of the Natural Resources Conservation Service prior to starting work.

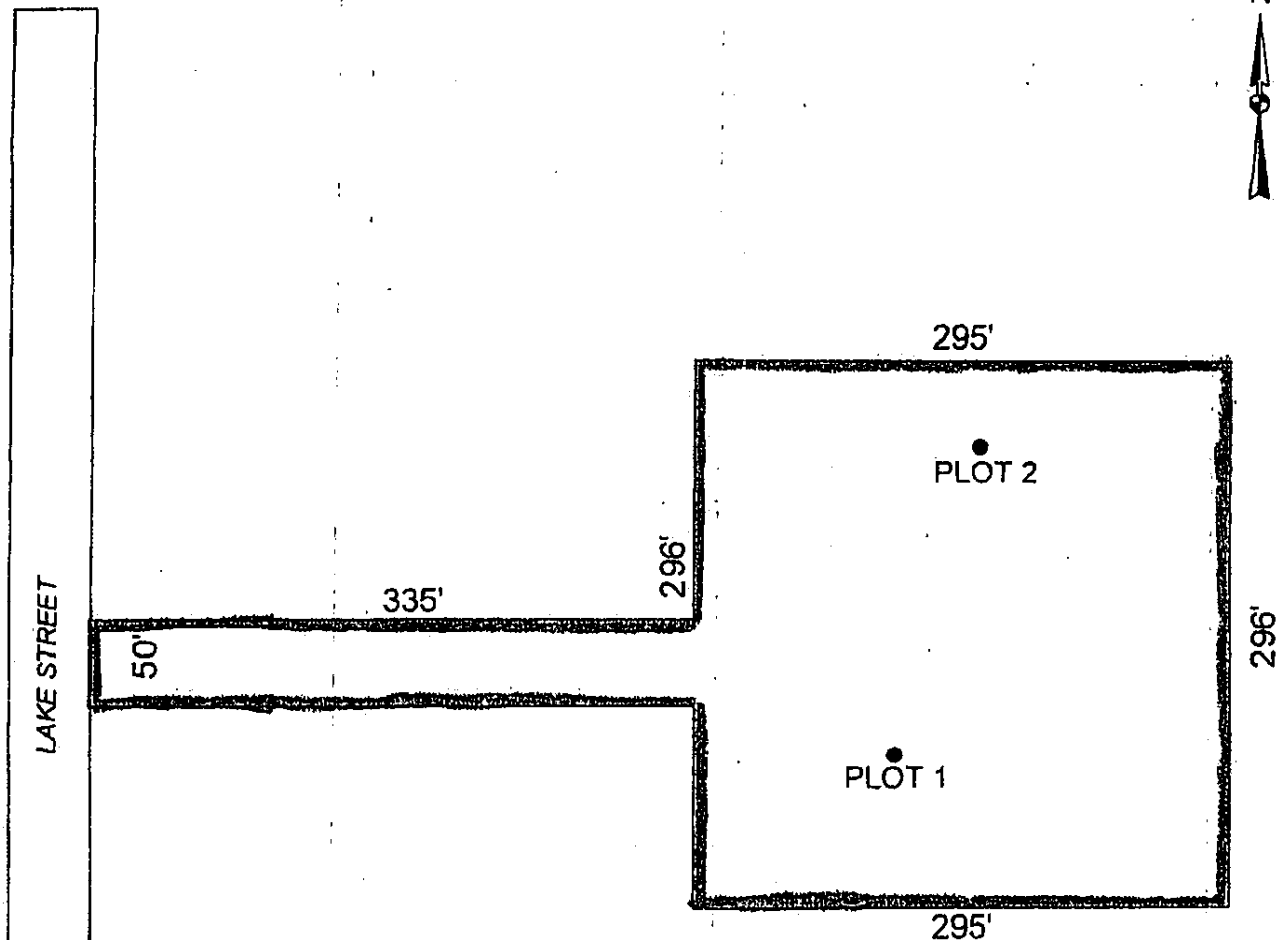
You and your client are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date.

Should there be any questions concerning these matters, please contact Mr. Brian Oberlies at (504) 862-2275 and reference our Account MVN-2005-2788-SY.

Sincerely,


Ronald J. Ventola
Chief, Regulatory Branch

Enclosures

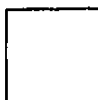


APPROVED
JURISDICTIONAL DETERMINATION

USACE

1H 7-26-05
BW
FOR *KEMMERER*
(0205-2788-57)

= NON-WETLAND



NON-WETLANDS

50 0 50 100 150 200 250 Feet

ARABIE ENVIRONMENTAL SOLUTIONS, INC.
FIGURE 2
SITE DIAGRAM
WETLAND DELINEATION
GREATHOUSE CONSTRUCTION
LAKE STREET
CALCASIEU PARISH, LOUISIANA

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mr. R. Scott Kemmerer

File No.: MVN-2005-2788-SY

Date: JUL 26 2005

Attached is:

	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	See Section below
	PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PERMIT DENIAL	B
X	APPROVED JURISDICTIONAL DETERMINATION	C
	PRELIMINARY JURISDICTIONAL DETERMINATION	D
		E

SECTION I: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

(over)

JURISDICTIONAL DETERMINATION
U.S. Army Corps of Engineers

Revised 8/13/04

DISTRICT OFFICE: New Orleans
FILE NUMBER: MVN-2005-2788-SY

PROJECT LOCATION INFORMATION:

State: Louisiana
Parish: Calcasieu
Center coordinates of site (latitude/longitude): NAD-83 30-6-08.33 / 93-13-48.00
Approximate size of area (parcel) reviewed, including uplands: 2 acres.
Name of nearest waterway:
Name of watershed:

JURISDICTIONAL DETERMINATION

Completed: Desktop determination ☒ Date: 7-26-05
Site visit(s) ☒ Date(s):

Jurisdictional Determination (JD):

- ☒ Preliminary JD - Based on available information, ☐ *there appear to be* (or) ☐ *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).
- ☒ Approved JD - An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:
- ☒ There are "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:
- ☒ There are "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:
- ☒ There are "isolated, non-navigable, intra-state waters or wetlands" within the reviewed area.
☒ Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

- A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":**
- ☒ The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
- B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":**
- ☒ (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- ☒ (2) The presence of interstate waters including interstate wetlands.
- ☒ (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
- ☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
- ☒ (4) Impoundments of waters otherwise defined as waters of the US.
- ☒ (5) The presence of a tributary to a water identified in (1) - (4) above.
- ☒ (6) The presence of territorial seas.
- ☒ (7) The presence of wetlands adjacent² to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above).



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

December 6, 2007

Operations Division
Surveillance and Enforcement Section

Mr. John P. Price
Providence Engineering and Environmental
1201 Main Street
Baton Rouge, Louisiana 70802

Dear Mr. Price:

Reference is made to your request, on behalf of Greathouse Investments, LLC, for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Section 18, Township 11 South, Range 8 West, Calcasieu Parish, Louisiana (enclosed map). Specifically, this site is identified as a woodwaste processing facility on and east of Lake Street.

Based on review of recent maps, aerial photography, and soils data, we have determined that there are jurisdictional wetlands within 1,000 feet of the subject site. A Department of the Army permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into this wetland.

You and your client are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

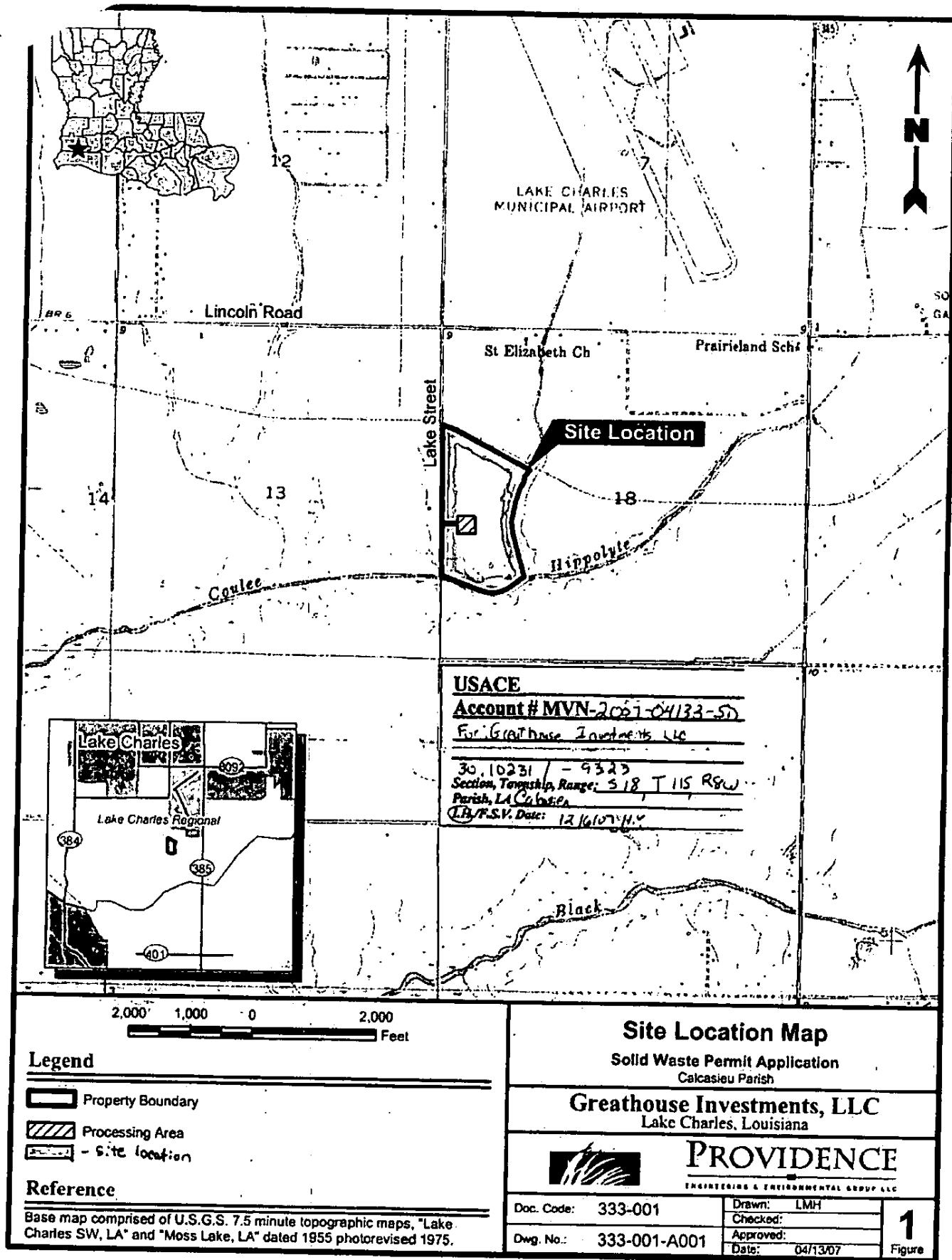
Should there be any questions concerning these matters, please contact Mr. Herbert Young at (337) 291-3045 and reference our Account No. MVN-2007-04133-SD. If you have specific questions regarding the permit process or permit applications, please contact our Western Evaluation Section at (504) 862-1950. To obtain a customer service survey form, please visit our website at: https://www.mvn.usace.army.mil/ops/regulatory/Cust_surv.HTM.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete J. Serio", is written over the typed name.

Pete J. Serio
Chief, Regulatory Branch

Enclosures





LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
BOB ODOM, COMMISSIONER



December 17, 2007

CONFIDENTIAL ASSISTANTS

LUKE A. THERIOT
T. TYSON "TY" BROMELL, II

Mr. John P. Price
Environmental Scientist
Providence Engineering and Environmental Group, LLC
1201 Main Street
Baton Rouge, LA 70802

ASSISTANT
COMMISSIONERS

Agricultural &
Environmental Sciences
Matthew Keppinger, III
P.O. Box 3596
Baton Rouge, LA 70821
(225) 925-3770
Fax: 925-3760

RE: Approval of Best Management Practices Plan- Land Application of Ash

Dear Mr. Price:

Agro-Consumer
Services
Benjamin Rayburn
P.O. Box 3098
Baton Rouge, LA 70821
(225) 922-1341
Fax: 923-4877

Reference is made to the submittal of a Best Management Practices Plan for the land application of sterilized ash. Your plan has been reviewed and is approved by this office. By copy of this letter we are notifying DEQ of our approval and are forwarding a copy of the plan for their files. It is the responsibility of the operator to insure that any permitting requirements are met relative to other local, state or federal programs if applicable.

Animal Health
Services
Malcolm G. Myer
P.O. Box 1951
Baton Rouge, LA 70821
(225) 925-3982
Fax: 925-4103

Should you need to incorporate any changes in the plan as submitted, you should let us know so that we may consider these for amendments to your plan.

Forestry
Paul D. Frey
P.O. Box 1628
Baton Rouge, LA 70821
(225) 925-4500
Fax: 922-1356

Please feel free to contact this office at any time and we will be happy to provide you any assistance in this matter.

Management
& Finance
Skip Rhorer
P.O. Box 3481
Baton Rouge, LA 70821
(225) 922-1255
Fax: 925-6012

Sincerely,

Butch Stegall
Butch Stegall
Program Administrator

Marketing
Bryce Malone
P.O. Box 3334
Baton Rouge, LA 70821
(225) 922-1277
Fax: 922-1289

BS: gs

Soil & Water
Conservation
Bradley E. Spicer
P.O. Box 3554
Baton Rouge, LA 70821
(225) 922-1269
Fax: 922-2577

cc: Mr. Billy Eakin, Southwest Regional Office, w/ enclosures
Mr. Bijan Sharafkhani, w/ enclosures

Enclosures

APPENDIX E

LAND USE/DEMOGRAPHIC DOCUMENTATION

GREATHOUSE INVESTMENTS, LLC
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

LAND USE DATA (3-MILE RADIUS)

Land Use Areas	Type of Area	Map Legend	Area	Sub-Total	Percentage
Urban or Built-Up Land	Commercial Services	Commercial Services	2101913.322666	2101913.322666	0.27%
Agricultural Land	Other Agricultural Land	Cropland and Pasture	1855382.979620		
Agricultural Land	Cropland and Pasture	Cropland and Pasture	649498700.000000	651354082.979620	82.79%
Forest Land	Deciduous Forest Land	Forested	2738572.650412		
Forest Land	Evergreen Forest Land	Forested	6287453.545928	9026026.196340	1.15%
Urban or Built-Up Land	Industrial	Industrial	1011079.202382	1011079.202382	0.13%
Urban or Built-Up Land	Residential	Residential	4799146.411751		
Urban or Built-Up Land	Residential	Residential	2326376.924422		
Urban or Built-Up Land	Residential	Residential	2570738.785410		
Urban or Built-Up Land	Residential	Residential	1438241.496365		
Urban or Built-Up Land	Residential	Residential	3938472.638151		
Urban or Built-Up Land	Residential	Residential	1689066.693351		
Urban or Built-Up Land	Residential	Residential	6192699.806472		
Urban or Built-Up Land	Residential	Residential	7210.751203	22961953.507125	2.92%
Barren Land	Transitional Areas	Transp. Comm and Transitional Areas	1977033.502230		
Barren Land	Transitional Areas	Transp. Comm and Transitional Areas	3236021.237146		
Urban or Built-Up Land	Transportation, Communications	Transp. Comm and Transitional Areas	22686131.413733		
Barren Land	Transitional Areas	Transp. Comm and Transitional Areas	3032556.945686		
Barren Land	Transitional Areas	Transp. Comm and Transitional Areas	650.155746	30932393.254541	3.93%
Wetland	Nonforested Wetlands	Wetlands	69356459.133563	69356459.133563	8.82%
Total			786743907.596237	786743907.596237	100.00%

Name	Class	State	County	Latitude	Longitude
Coulee Hippolyte	Stream	LA	Calcasieu	30.07909940000	-93.26154290000
Prairieland School	School	LA	Calcasieu	30.10993150000	-93.21348700000
Saint Elizabeth Church	Church	LA	Calcasieu	30.11020930000	-93.22765370000
Prairieland	Populated Place	LA	Calcasieu	30.11020930000	-93.21320930000
Prairieland Community Church	Church	LA	Calcasieu	30.11048700000	-93.21293150000
South Lake Charles Gas Field	Oilfield	LA	Calcasieu	30.11187590000	-93.20737580000
Lake Charles Office Heliport	Heliport	LA	Calcasieu	30.11437580000	-93.21209800000
District 8 Parish Governing Authority District	Civil	LA	Calcasieu	30.11715360000	-93.27432100000
South 40 Heliport	Heliport	LA	Calcasieu	30.12354230000	-93.25182060000
Lake Charles Regional Airport	Airport	LA	Calcasieu	30.12576450000	-93.22293150000
Open A-1 Ranch Airport	Airport	LA	Calcasieu	30.13854180000	-93.22793160000

Enter Location and Radius

Decimal degrees	Latitude 30.103597	Longitude 93.231706	Radius (miles) 1
or deg-min-sec	30 6 12	93 13 54	Calculate Population
hemisphere	<input checked="" type="radio"/> North <input type="radio"/> South	<input checked="" type="radio"/> West <input type="radio"/> East	

Clear all fields

Refresh Lat/Long
from MARPLOT

Print this screen

Show this radius
on map

Results (based on Census Blocks points located within or touching the circle defined by the radius)

Total population:	12	Block count:	2
Housing Units:	6	Area within radius:	3.1 sq. mi.
White alone:		12	
Black or African American alone:		0	
American Indian and Alaska Native alone:		0	
Asian alone:		0	
Native Hawaiian and Other Pacific Islander alone:		0	
Some other race alone:		0	
Two or more races:		0	
Hispanic or Latino:		0	

Enter Location and Radius

Decimal degrees	Latitude 30.103597	Longitude 93.231706	Radius (miles) 2
— or — deg-min-sec	30 6 12	93 13 54	Calculate Population
hemisphere	<input checked="" type="radio"/> North <input type="radio"/> South	<input checked="" type="radio"/> West <input type="radio"/> East	

Clear all fields

Refresh Lat/Long
from MARPLOT

Print this screen

Show this radius
on map

Results (based on Census points located within or touching the circle defined by the radius)

Total population:	1,512	Block count:	17
Housing Units:	594	Area within radius:	12.6 sq. mi.

White alone:	1419
Black or African American alone:	65
American Indian and Alaska Native alone:	7
Asian alone:	7
Native Hawaiian and Other Pacific Islander alone:	1
Some other race alone:	4
Two or more races:	9
Hispanic or Latino:	13

Enter Location and Radius

Decimal degrees	Latitude 30.103597	Longitude 93.231706	Radius (miles) 3
— or — deg-min-sec	30 6 12	93 13 54	Calculate Population
hemisphere	<input checked="" type="radio"/> North <input type="radio"/> South	<input checked="" type="radio"/> West <input type="radio"/> East	

Clear all fields

Refresh Lat/Long
from MARPLOT

Print this screen

Show this radius
on map**Results (based on Census Blocks points located within or touching the circle defined by the radius)**

Total population:	5,413	Block count:	50
Housing Units:	2,036	Area within radius:	28.3 sq. mi.

White alone:	4929
Black or African American alone:	361
American Indian and Alaska Native alone:	20
Asian alone:	31
Native Hawaiian and Other Pacific Islander alone:	6
Some other race alone:	18
Two or more races:	48
Hispanic or Latino:	53

APPENDIX F
EMERGENCY RESPONSE CERTIFICATION



Acadian

AMBULANCE SERVICE



NATIONALLY
ACCREDITED

P.O. Box 92970 • LAFAYETTE, LA • 70509-2970

AMBULANCE
DISPATCH
311
800-259-1111

ADMINISTRATION
337-291-3333
800-259-3333

BILLING
800-259-2222

November 16, 2007

John Price
Greathouse Investments, LLC
Re: Solid Waste Permit Application

Dear John,

This letter is regarding your request for information regarding Providence's solid waste permit application in Lake Charles, LA. Acadian Ambulance is proud to serve the Southwest Louisiana area, and will respond to your Lake Charles location of your facility. We have three stations in Lake Charles, and a total of eight ambulances that are stationed at them. We will respond to emergency situations at Greathouse and can meet the response requirements of Section 473 of the Life Safety Code of the National Fire Protection Association.

Sincerely,

Leslie B. King
Administrative Assistant



CITY OF LAKE CHARLES

RANDY ROACH
MAYOR

326 Pujoe St. • P.O. Box 1703
Lake Charles, LA 70602-1703
337-491-1368 • FAX 337-491-8618

LAKE CHARLES
FIRE PREVENTION
BUREAU

Providence
John P. Price
1201 Main Street
Baton Rouge, LA 70802

Ref: Reply to: Request for information
Greathouse Investments, LLC
Solid Waste Permit Application
Type III Woodwaste Processing Facility
Providence Engineering Project No. 333-001

Dear John P. Price:

The Lake Charles Fire Department will respond to emergency situations at Greathouse and can meet the response requirements of Section 472 of the Life Safety code of the National Fire Protection Association.

We are happy to help! If you have any questions, please do not hesitate to call me at (337) 491-1368.

Sincerely,


Chief T.A. Jones

Cherishing the Past, Embracing the Future



Lake Charles Memorial Hospital

Everything Your Healthcare Should Be.

Providence Engineering &
Environmental Group LLC
1201 Main Street
Baton Rouge, LA 70802

Emergency Department
Lake Charles Memorial Hospital
1701 Oak Park Blvd.
Lake Charles, LA 70601

To Providence Engineering & Environmental Group LLC:

This is a letter in reference for your request for validation that the Lake Charles Memorial Hospital Emergency Center offers decontamination and Hazardous Material treatment. We are a full service Emergency Department that takes care of Disasters and decontaminations and have a full range of equipment and trained personnel to perform this task. We also provide a full range of services for medical emergencies and are known in Southwest Louisiana as the regional trauma center though we do not have the official designation. The ED is covered by Board Certified Emergency Department Physicians twenty-four hours a day.

We thank you for choosing our hospital as the hospital of choice. If you have any needs in the future feel free to call me at 1-337-494-3035 (Office) or 1-337-494-3036 (Main Emergency Department). Thank you for allowing us to serve your needs in the community.

Sincerely,

Gordon "Lee" Ladner II, RN, BSN, BSB

Gordon "Lee" Ladner II
Emergency Center Director

APPENDIX G
CERTIFICATION

CERTIFICATION

LAC 33:VII.521.F. Facility Plans and Specifications, Certification.

The person who prepared the permit application must provide the following certification:

"I certify under penalty of law that I have personally examined and I am familiar with the information submitted in this permit application and that the facility as described in this permit application meets the requirements of the solid waste rules and regulations. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

Name: Carroll Greathouse Title: owner

Signature: Carroll Greathouse Date: 4/30/07

**GREATHOUSE INVESTMENTS, LLC
TYPE III WOODWASTE PROCESSING
FACILITY**

OPERATIONAL PLAN

SEPTEMBER 2008

**PROVIDENCE ENGINEERING AND ENVIRONMENTAL GROUP LLC
1201 MAIN STREET
BATON ROUGE, LOUISIANA 70802
(225) 766-7400**

PROVIDENCE ENGINEERING PROJECT NO. 333-001

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1.0 INTRODUCTION

Greathouse Investments, LLC (Greathouse) operates a Type III woodwaste processing facility. The facility is located on the south end of Lake Street approximately 0.6 miles from the Lincoln Road-Lake Street intersection in Lake Charles, Calcasieu Parish, Louisiana. The primary function of the facility is to manage woodwaste and yard waste in an environmentally safe manner. After being inspected at the front office, trucks are directed to the staging area for off-loading of woodwaste.

The Louisiana Department of Environmental Quality (LDEQ) Waste Permits Division granted temporary approval to strategically locate debris management sites in the parishes impacted by Hurricanes Katrina and Rita. In October 2005 the LDEQ granted Greathouse a one-time exception in accordance with LAC 33:III.1109.D.9 to allow outdoor burning for an organized program to dispose of storm debris, such as leaves, limbs, trees, and other vegetative matter. Greathouse has met the conditions of the storm debris burning exemption since operations.

Greathouse is requesting a Type III Solid Waste Permit to manage woodwaste and yard waste in an environmentally safe manner on a permanent basis. Greathouse plans to use a belowground air curtain destructor to burn woodwaste and yard trash for beneficial use.

2.0 BACKGROUND

The facility is located on Lake Street on agricultural land in Lake Charles, Louisiana, in Calcasieu Parish. Access to the site is via Lake Street. Access to the facility is by all-weather roads that meet the demands of the facility. The roads are designed to avoid, to the extent practicable, congestion, sharp turns, obstructions, or other hazards conducive to accidents.

3.0 PURPOSE

The Operational Plan allows for the safe and efficient use of the facility for woodwaste processing and beneficial use of processed woodwaste. Following these guidelines and associated permits will ensure compliance and discharge of storm water in an environmentally sound manner.

4.0 REQUIREMENTS

Records are maintained to ensure that proper control is maintained over the woodwaste processing facility in accordance with the facility's permit as well as LDEQ Solid Waste Rules and Regulations.

5.0 OVERVIEW OF FACILITY

5.1 Design

The solid waste facility consists of a wood processing unit (belowground air curtain destructor). The facility is designed, constructed, maintained, and operated in accordance with applicable permits.

5.2 Operations

The Greathouse facility accepts woodwaste for processing. The types of woodwaste accepted by this facility meet the definition of woodwaste and yard trash as describe in LAC 33:VII.115. Woodwaste and yard trash is a naturally formed organic material composed of cellulose, lignin, and water.

Woodwaste that is received at this facility is primarily from residential and commercial land clearing, landscaping/yard maintenance. The facility receives waste mainly from Calcasieu and Cameron Parishes. The receipt of hazardous waste is prohibited and prevented.

5.3 Equipment, Associated Units, and Personnel

Sufficient equipment is provided and maintained to meet the facilities' operational needs. The minimum equipment furnished at the facility is an belowground air curtain destructor and a front-end loader.

The facility requires minimum staffing for efficient operation. The daily operation of the facility is conducted by an processor/front-end loader operator.

6.0 GENERAL PROCEDURES

6.1 Waste Approval

As the waste is brought to the facility, it is inspected and logged in at the entrance gate by a trained employee. The following information is provided for each load and recorded in the recordkeeping system on site:

- Date
- Time
- Type of material
- Source of waste
- Volume of waste
- Delivery vehicle identification
- Delivery vehicle owner
- Delivery vehicle driver
- Transporter identification number

Each incoming waste shipment is evaluated by a trained facility employee at the entrance to the facility. The permitted waste streams consist of the following:

Woodwaste

Defined in LAC 33:VII.115 as types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, and wood-fired boiler ash.

Yard Trash

Defined in LAC 33:VII.115 as vegetative matter resulting from landscaping, maintenance, or land-clearing operations, including tree and shrubbery leaves and limbs, grass clippings, and flowers. In addition, the facility is permitted for wood/wood chip storage.

The receipt of liquid waste, infectious waste, residential waste, industrial waste, commercial waste, friable asbestos, and putrescible waste is not allowed.

6.2 Waste Handling

Material arriving at Greathouse is delivered by transport truck. The waste material is inspected and the truck load is determined by weighting upon arrival at the entrance gate. The quantity of waste entering the facility is measure based on volume. Drivers carrying approved woodwaste are then directed to the burner site to unload the cargo for processing. Woodwaste that arrives at the burner site is checked again for unauthorized material before being unloaded on the staging area to wait processing. The driver's information, entrance and exit time, type(s) of waste, load weight, and location of origin of waste are recorded into the facility's logbook at the entrance gate.

The unloaded material in the staging area is picked up by a front-end loader and loaded into the belowground air curtain destructor for combustion. The sterilized ash resulting from combustion is then utilized for beneficial use

Open burning shall not be practiced unless authorization is first obtained from the administrative authority and any other applicable federal, state, and local authorities.

Salvaging will be prevented unless approved by the administrative authority. Scavenging will be prevented. Salvaging and scavenging is controlled by a gate and natural barriers completely surrounding the facility.

Recordkeeping procedures are employed to ensure that all pertinent activities are properly documented.

7.0 WASTE MANAGEMENT

The facility is permitted to process woodwaste and yard trash. Woodwaste is defined in LAC 33:VII.115 as types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, and wood-fired boiler ash. Yard trash is defined as vegetative matter resulting from landscaping, maintenance, or land-clearing operations, including tree and shrubbery leaves and limbs, grass clippings, and flowers.

8.0 HOURS OF OPERATION

The site operates Monday-Friday, from 7:00am-5:30pm. During emergency situations, Greathouse reserves the right to extend hours of operation upon notification to the regional administrative authorities.

9.0 EMERGENCY PROCEDURES

All individuals within the property boundary at the site adhere to operational guidelines. Each employee at Greathouse is instructed and expected to follow the facility's safety rules. These rules and procedures were compiled to ensure that safe and consistent steps are followed on a variety of activities to protect employees and minimize the potential for accidents, fires, explosions, or other emergencies.

Lake Charles Memorial Hospital is approximately 2 miles from the facility. The City of Lake Charles Fire Department is approximate 8 miles away from Greathouse.

Access to the facility is by all-weather roads that are maintained to avoid hazardous conditions. The operation of the facility will continue through most minor weather conditions with no change in procedure.

All equipment involved in facility operations is periodically inspected and maintained to prevent breakdowns and ensure proper operation.

Severe weather conditions, such as hurricanes or other violent storms, may result in the closing of the facility, depending on the location and severity of such weather and the likelihood of direct impact on the facility. Decisions to close the facility in inclement weather are made by management personnel.

10.0 RECORDKEEPING

The facility maintains routine management and administrative records and documentation necessary for the preparation of reports required by the LDEQ as outlined in the Solid Waste Rules and Regulations.

The facility's recordkeeping system will contain the following, at a minimum:

- Current Louisiana Solid Waste Rules and Regulations
- The current solid waste permit
- The current solid waste permit application
- Solid waste permit modifications

The facility will maintain a copy of all applicable environmental permits, annual reports, records, and other documents specified in the permit application as necessary for the effective management of the facility and for preparing the required reports. These records will also be used to ensure compliance with all applicable regulations. The records shall be maintained for the life of the facility and shall be kept on file for at least three years after closure.

The records will be utilized to ensure that the facility is operated in accordance with all applicable permits. The records will also be used as the foundation for all reports required by the LDEQ and for the management of information for control of facility operations.

An annual report will be submitted to the Office of Management and Finance, Financial Services Division indicating quantities (expressed in wet-weight tons per year) and types and sources of material processed during the reporting period. All calculations used to determine the amounts of waste processed during the annual reporting period will be submitted to the Office of Management and Finance, Financial Services Division. This form will be updated if changed by the administrative authority. The reporting period for the annual report will be from July 1 through June 30 and will be submitted to the administrative authority by August 1 of each reporting year.

The records of inspections and annual solid waste report records will be maintained and kept on file at the facility.

11.0 TRAINING AND SAFETY PROCEDURES

Safety training sessions will be held for all employees on an annual basis. Records of the training sessions, as well as other training courses will be maintained throughout the operational life of the facility and kept on file for at least three years after closure.

12.0 REVIEW

This section outlines the review procedures for this Operational Plan.

- The plan shall be reviewed annually plan are current and continue to reflect good engineering by facility personnel to verify that the operating procedures set forth in this judgment for the operation of the facility.
- The plan shall be modified and updated as deemed appropriate by facility personnel.

APPENDIX I
CONTINGENCY PLAN

CONTINGENCY PLAN

The information contained in this section of the permit application is submitted for Greathouse Investments, LLC for the Type III woodwaste processing facility. The purpose of this Contingency Plan (Plan) is to minimize hazards to human health and the environment from fires, explosions, or unplanned releases of waste or waste constituents to air, soil, or water. The provisions of this plan will be carried out immediately whenever there is a fire, explosion, or release of waste or waste constituents that could threaten human health or the environment. The air curtain destructor used at Greathouse operates in accordance with all local, state, and federal permits to ensure public safety.

This plan will also be implemented whenever any situation involving the imminent, or probable spillage, leakage, or release of a waste substance onto land, water, or the atmosphere could create an immediate or potential danger to the public health or safety due to its quantity, strength, and toxicity; its mobility in the environment; or its persistence. Routine cleanup operations will be performed by operating personnel without implementing this plan.

In the event that there is an incident that requires further assistance, the local fire department will respond. First aid and other equipment required to respond to minor emergencies is maintained at the company office. Arrangements have been made for health and accident emergency cases to be received at the local hospital.

In the event of an emergency, the on-site personnel will be responsible for assessing the extent of the emergency. Earth moving equipment will be available to assist with extinguishing uncontrolled fires, blowing litter, or the release of waste materials. Should the facility manager assess that the available resources are inadequate to handle the emergency, the local fire department will respond. Lake Charles Memorial Hospital is approximately 2 miles from the facility. The City of Lake Charles Fire Department is approximate 8 miles away from Greathouse.

APPENDIX J
PERSONNEL TRAINING PLAN

PERSONNEL TRAINING PLAN

1.0 INTRODUCTION

Greathouse Investments, LLC is committed to providing a safe working environment for all workers within the facility. Through continuing training, facility workers can be prepared to perform their job tasks in a safe manner that will protect both personal health and the environment.

2.0 PURPOSE

The purpose of this plan is to provide guidance for the procedures and training implemented at the facility that protects workers and the environment.

3.0 SCOPE

This plan specifically gives guidance as a tool to address training given through various plans and procedures within the facility.

4.0 PLANS AND PROCEDURES

4.1 Solid Waste Facility Contingency Plan And Emergency Procedure

The facility maintains a facility contingency plan that is revised as necessary to reflect current operations and maintain regulatory guidance. The purpose of this plan is to minimize hazards to human health or the environment from any sudden or non-sudden release of waste materials to the soil or surface waters. Training is given annually to employees at the facility and with the operations staff on the contents of this plan. The plans also ensure the best possible prevention, preparedness, response, and recovery in the event of an on-site emergency.

4.2 Safety

Workers at the solid waste facility receive orientation training and job specific training. Safety meetings are held on site with workers to address attention to safety issues as they arise.

5.0 RESPONSIBILITIES

The facility manager is responsible for review, procedure amendment or revision, and training. Training will be administered on the differing plans listed as necessary to achieve the proper guidance of employees and operational staff who work at the facility.

6.0 TRAINING PROGRAM

The following topics may be covered and discussed for operations training:

- Equipment Operation
 - Theory of Air Curtain System
 - Machine Operation
 - Maintenance
 - Combustion Chemistry
- Facility Operations
 - General Permit Requirements
 - Acceptable/Unacceptable Materials
 - Record Keeping
- Security
 - Unauthorized entrance
 - Security Procedures
- Personal Health and Accidents
 - First Aid
 - Potential Health Concerns
 - Personal Protective Equipment
 - Responder Procedure
- Fire/Explosions
 - Fire extinguisher Demonstration
 - Responding to a fire emergency
 - Potential for explosion at this site
 - Good Housekeeping

The training program will be revised as needed.

APPENDIX K
CLOSURE COST ESTIMATE

CLOSURE COST ESTIMATE

Task	Quantity	Unit	Unit Cost	Cost
Dismantle Equipment	1	Lump	\$2,500	\$2,500
Remove Equipment	1	Lump	\$2,000	\$2,000
Re-grade Site to Original Contours	2	Acres	\$2,000	\$4,000
Rodent Inspection	1	Lump	\$500	\$500
Engineering Certification Report	1	Lump	\$1,500	\$1,500
Total				\$10,500